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# VISION 2010

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# D·O·W·N·E·Y

# GENERAL PLAN

## DOWNEY COMPREHENSIVE GENERAL PLAN

## VISION 2010

OCTOBER, 1992

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*Louise Toledo
Robert Armstrong
*Pat Gregorio
Doris McArthur

*Former Members

## CITY MANAGER

Gerald M. Caton, City Manager
Lee Powell, Assistant City Manager
*Ken Farfsing, Assistant City Manager

## COMMUNITY DEVELOPMENT DEPARTMENT

Art Rangel, AICP, Director of Community Development
Terri Johansen, Executive Secretary
*Laura Wilson, Administrative Assistant

### Planning Division

Ronald Yoshiki, City Planner/Assistant Director of Community Development
Theresa Sutton-Still, Planning Commission Secretary
Franklin DeGroot, Principal Planner
Mark Sellheim, Principal Planner
Mary Martineau, AICP, Senior Planner
Marco Martinez, Associate Planner
William Doebler, AICP, Associate Planner
Cindy Nelsen, Assistant Planner
John Brownell, Assistant Planner
Dan Rockholt, Planning Technician
*Julie Anderson, Administrative Clerk II

### Land Use Survey Team

*Ramona Castaneda
*Michelle Macalalad
*Calvin McShan
*Steve Medley
*Victoria Simmons
*Sheri Walker

*Former Staff

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## INTRODUCTION

Vision 2010, The Downey General Plan, is the first update since 1973. It is intended to guide the city for twenty more years, into the next century. Downey is a mature community. Its' challenges include an aging infrastructure, aging structures, and land uses that are no longer appropriate in today's economic market. Downey's opportunities include the high quality of the city and its' residents, and its location in the southeast area.

All of those issues and opportunities have been folded into the 2010 Plan. Work on the plan began in May, 1989, when Staff began updating the Housing Chapter. Since then nine more chapters were written to form the comprehensive General Plan of the City of Downey. The Housing and Hazardous Waste Management Chapters were written and adopted before the General Plan Steering Committee was formed. Conservation, Safety and Noise were adopted in January, 1991, and the Open Space/Recreation Chapter was adopted in July, 1991.

The culmination of the process came in August of 1992 when the Circulation Chapter, the Land Use Chapter and the Land Use Diagram were adopted. At that time, the Council re-adopted Housing, Conservation, Safety, Noise and Open Space/Recreation, to insure internal consistency within the plan. To give community groups more time to review the optional chapters, Design and Economic Development; those chapters were adopted in October, 1992. The general plan chapters and the dates they were adopted are:

Hazardous Waste Management, adopted August, 1990
Housing, adopted August, 1992
Conservation, adopted August, 1992
Safety, adopted August, 1992
Noise, adopted August, 1992
Open Space/Recreation, adopted August, 1992
Circulation, adopted August, 1992
Land Use, including the Land Use Diagram, adopted August, 1992
Design, adopted October, 1992
Economic Development, adopted October, 1992

Public input is crucial to the success and function of a General Plan. Professional staff can identify most of the issues in a city, but residents who live and work in the community are best able to identify issues unique to their city. To obtain public input, a survey was sent to Downey residents and businesses, public meetings were held throughout the city, and a citizen's General Plan Steering Committee was formed to draft goals, policies and programs.

Public Survey

Following are the results of the General Plan Questionnaire that was mailed in September, 1990. The survey was intended to obtain public input about various topics that are part of the General Plan Update. Approximately 36,000 surveys were mailed to all business and residential postal addresses within the City limits. The total number of respondents to the survey was 2,200, and the response rate was 6 percent. Although the survey results are not statistically valid, the survey served an important role in informing the community about the General Plan update and in gathering baseline information for the update.

Eighty-four (84%) percent of the respondents were city residents and fifty-eight (58%) percent of the respondents have lived in Downey for more than 20 years. Eighty-three (83%) percent live in a single-family residence, and the same percentage own their own homes. A majority of the respondents are retired.

When asked what city services they had used in the past year, the top two answers given by the respondents were local parks and the library. A majority believed there was a need for additional parks and park amenities in Downey.

The top five reasons given for liking Downey were:

- location
- clean appearance
- neighborhoods
- low crime rate
- excellent Police and Fire Departments.

The top five reasons given for disliking Downey were:

- increasing crime
- increasing traffic
- poor property maintenance
- too many apartments
- lack of restaurants.

GENERAL PLAN 2010
LAND USE DIAGRAM

**GENERAL PLAN STEERING COMMITTEE:** KEITH McCARTHY, ROGER LAWRENCE, RALPH JENNEY, JOHN BRAMBLE, MEREDITH PERKINS, JERRY ANDREWS, WILLIS LEACH JR. (seated), NOT SHOWN: BRIAN GASDIA, FRANK SHELDON AND DAN WILSON.

## The General Plan Steering Committee

In August, 1990, the City Council appointed two persons per district to serve on the Steering Committee. Each one lives in Downey and several are second and third generation Downeyites. Three own businesses in town.

The General Plan Steering Committee and Planning Staff have spent over a thousand hours working on the Plan and attending public meetings. Three Saturdays were spent touring Downey, discussing issues and opportunities.

The Steering Committee discussed and reviewed each chapter at length. They provided Staff with the guidance to develop the issues, opportunities, Goals, Policies and Programs for the Conservation, Safety, Noise, Open Space/Recreation, Design, Economic Development, Circulation and Land Use Chapters. The Housing and Hazardous Waste Management Chapters were written before the Committee was formed.

## Public Meetings

Ten public meetings were held. Five meetings were held in October and November, 1990, to hear citizen's comments about Conservation, Safety and Noise. In February, 1991, a public meeting was held in City Hall to discuss Open Space and Recreation. Three more public meetings were held in July, 1991, to hear comments about Design, Economic Development, Circulation and Land Use. In February, 1992, a meeting was held in the Golden Park neighborhood to discuss a proposed specific plan for the neighborhood.

Planning Staff also made General Plan presentations to the Downey Board of Realtors, the Los Amigos Kiwanis, and the Downey Chamber of Commerce.

The press and the City's cable channel were used to publicize the Plan. Public meetings were advertised on cable, and Staff and the Committee Chairman participated in a talk show outlining the Plan and the planning process. Articles and editorials appeared regularly in the press urging citizen participation in the planning process.

## The Plan

The General Plan is a comprehensive document. It contains goals, policies and programs to guide the City's decision makers and Staff through the next twenty years. It contains policies and programs about recycling solid waste, upgrading the water system, keeping vehicle traffic moving smoothly through the city, planning in the event of a major disaster, retaining open space, promoting property maintenance, attracting new businesses to the city and more. It also includes a variety of diagrams illustrating future land use designations and categories throughout the community. It discusses concerns raised at all the public meetings and offers solutions.

The Committee and Planning Staff hope that, as one reads the plan, one will understand Downey in 1992 and also understand where Downey is going to be in 2010. Because the plan is not a static document, the Committee adopted the following policy:

### Policy

0.1 The City shall review the General Plan annually and update it as needed.

## PERSONS/AGENCIES CONTACTED

### City of Downey

#### City Attorney

Peter Thorson
Tim McOsker

#### Community Development Department

Bill Makshanoff, Building Official
Ed Velasco, Housing Manager
Sid Lee, Sr. Code Enforcement Officer

#### Community Services Department

Jim Jarrett, Director
Bonnie Kehoe, Recreation Division Manager

#### Fire Department

Ron Irwin, Chief
Dennis Groat, Fire Marshal
Dennis Lockhard, Captain
Robert Rowe, Hazardous Materials Inspector

#### General Services

Lowell Williams, Finance Director

#### Police Department

Clayton Mayes, Chief
Steve Garza, Community Relations

**Public Works Department**

Dick Redmayne, Director
Bob Brace, City Engineer
Joseph Arranaga, Physical Services Superintendent
Greg Mayfield, Water Superintendent
Joanne Itagaki, Traffic Engineer
Erik Zandvliet, Jr. Civil Engineer
Frank Stan, Real Estate Officer
Kathy Simmons, Administrative Assistant
Bill Ralph, Former Director

Weston Pringle & Associates, Traffic Engineering Consultants

Market Profiles and The Synthesis Group, Economic Consultants

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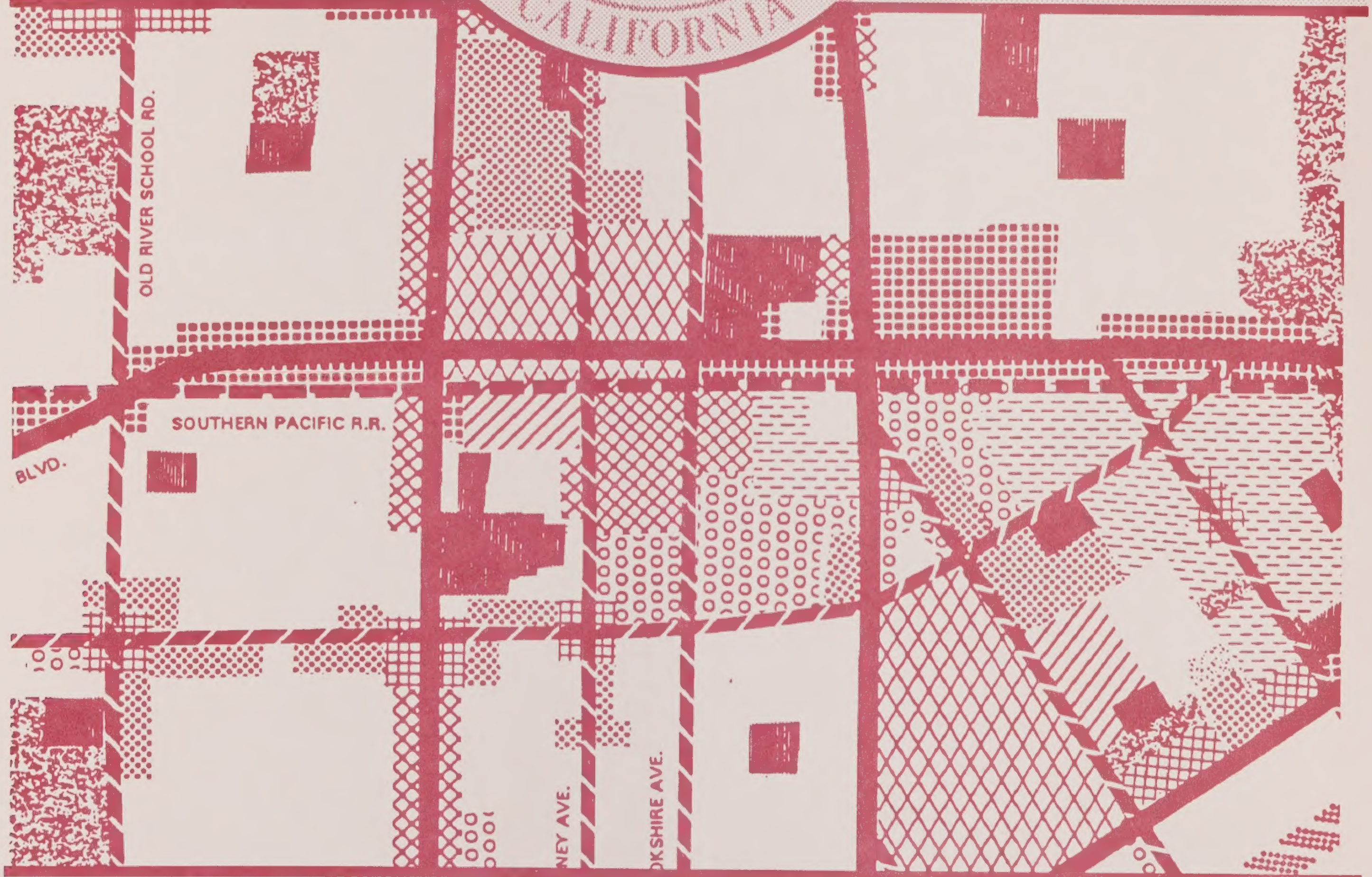
# DOWNEY GENERAL PLAN


OLD RIVER SCHOOL RD.
SOUTHERN PACIFIC R.R.
BLVD.
NEY AVE.
OKSHIRE AVE.

# LAND USE CHAPTER

# LAND USE CHAPTER

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# LAND USE

## INTRODUCTION

The State Government Code Section 65302(a) requires a land use element in the General Plan. The element should designate the proposed distribution and general location and extent of the use of the land for housing, business, industry, open space, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of the land. It should include a statement of the standards of population density and building intensity covered by the plan. It should also identify areas subject to flooding.

The land use element is often perceived as being most representative of "The General Plan". [1] While the land use element carries no more weight than any other General Plan element, it is the most visible element of the plan and it has the broadest scope.
The land use chapter designates the future use or reuse of the land within a given jurisdiction. It consists of goals, policies and programs as well as the land use diagram. The diagram is a general guide to land use distribution rather than a parcel specific map. Land use interpretations are then delegated to specific plans and the zoning maps.

The plan serves as a guide to decisions in regard to the distribution and intensity of private development, as well as public decisions on the location of future public facilities and open spaces. It also serves as a basic guide to the structuring of zoning and subidivision controls, redevelopment and capital improvement programs. [2]

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[1] State of California General Plan Guidelines, Office of Planning and Research, Sacramento, 1990.

[2] The Job of the Planning Commissioner, Solnit, page 23.

## LAND USE ISSUES & OPPORTUNITIES

### DOWNEY'S UNIQUE CHARACTER

#### Issue One

Maintaining the high quality and single family character of the city are the community's primary goals.

#### Issue Two

Downey should preserve the balance of single family residential, multi-family residential, medical, commercial, industrial, schools and open space uses.

#### Issue Three

Downey is a mature community, experiencing the forces of change.

#### Issue Four

Land use patterns in the city need to be reviewed.

### REGIONAL LOCATION

#### Issue Five

Downey has a superior geographic location in the Southern California basin.

#### Issue Six

Regional forces, such as demographic changes, traffic increases, the cost of land and proximity to ports and location in Los Angeles and Orange Counties, affect Downey.

#### Issue Seven

Several areas within the city are owned by and subject to regulations by other agencies, such as State, County, Federal, School, Railroad and Utility properties.

## GOALS. ISSUES. POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address land use issues in the City of Downey.

### GOALS

Preserve Downey as the quality, premier city in the Southeast area of Los Angeles.

Promote and preserve the quality of our Single-family Residential areas.

Promote and upgrade the quality of commercial, industrial and open space areas.

Coordinate land use and transportation needs of the community.

- **Issue One**

Maintaining the high quality and single family character of the city are the community's primary goals.

Policies

1.1.1 The City shall encourage owner-occupied housing development.

1.1.2 The City shall regulate residential density to reflect minimum lot sizes appropriate for the respective neighborhoods.

1.1.3 The City shall promote property maintenance.

Programs

The City shall:

1.1.1.1 Encourage owner-occupied housing by establishing Planned Unit Development (PUD) overlay zones;

1.1.2.1 Retain residential density as follows:
low density residential at 1-8.7[3] units per acre;
low-medium density residential at 9-17 units per acre;
medium density residential at 18-24 units per acre;

1.1.2.2 Designate areas of Second Unit Developments as shown in the Housing Chapter;

1.1.3.1 Increase pro-active code enforcement for property maintenance;

1.1.3.2 Adopt a property maintenance ordinance;

1.1.3.3 Continue the Community Development Block Grant programs; paint & fix-up, Neighborhood re-hab programs, low interest home improvement loan programs;

1.1.3.4 Encourage neighborhood TASK FORCE efforts, such as the Elm Vista and Cheyenne Street projects, including Keep Downey Beautiful, for the upgrade & maintenance of targeted areas.

---

[3] 8.7 units per net acre; net acres do not include streets.

- **Issue Two**

Downey should preserve the balance of single family residential, multi-family residential, medical, commercial, industrial, schools and open space uses.

Policies

1.2.1 The City shall strive to retain the relative balance of land uses.

**Programs**

The City shall:

1.2.1.1 Retain the balance between single family residential, multi-family residential, commercial, industrial, schools and open space;

1.2.1.2 Monitor land uses to retain the balance.

1.2.1.3 Promote land uses within Downey that diversify the tax base.

1.2.1.4 Locate noise sensitive land uses away from noise sources.

- **Issue Three**

Downey is a mature community, experiencing the forces of change.

Policies

1.3.1 The City shall encourage quality construction on development as properties recycle;

1.3.2 The City shall encourage adaptive re-use of older structures;

1.3.3 The City shall create areas for mixed land uses;

1.3.4 The City shall continually review areas in the process of transition.

**Programs**

The City shall:

1.3.1.1 Adopt Design Guidelines for the public and the Design Review Board, consistent with the Design Chapter of the General Plan;

1.3.1.2 Adopt Floor-area ratios (FAR) to determine building intensity;

1.3.2.1 Encourage preservation and renovation of older structures;

1.3.3.1 Designate areas for mixed land uses, with residential/commercial or commercial/manufacturing;

1.3.3.2 Develop a specific plan, including mixed uses and design guidelines, for the historic downtown area;

1.3.4.1 Review the goals, policies and programs of the General Plan annually.

- **Issue Four**

**Land use patterns in the city need to be reviewed.**

**Policies**

1.4.1 The City shall eliminate inconsistent zoning.

1.4.2 The City shall create neighborhood centers, or "nodes", at designated intersections.

1.4.3 The City shall revise the zoning ordinance to include development and performance standards.

1.4.4 The City shall examine the impacts of child care needs.

**Programs**

The City shall:

1.4.1.1 Inventory zone exception cases and eliminate inconsistent zoning in those cases;

1.4.2.1 Reclassify land uses on designated strip commercial areas;

1.4.2.2 Concentrate certain commercial uses to "neighborhood nodes"; the nodes shall be integrated with "design links";

1.4.3.1 Require larger parcel sizes in the multi-family, commercial and industrial areas when new lots are created;

1.4.3.2 Require apartments to have upgraded Planned Unit Development standards for new developments;

1.4.3.3 Revise the zoning ordinance;

1.4.3.4 Require information to be submitted by projects within proximity to, but not limited to, electric transmission lines/transformers to evaluate the presence and/or effect of electro-magnetic fields;

1.4.4.1 Establish a method of maintaining the public right of way, including parking, lighting and landscape, in the multi-family, commercial and industrial areas;

1.4.4.2 Encourage senior housing to locate in the hospital medical area and the historic downtown area;

1.4.4.3 Develop a specific plan for the area East of Stewart & Gray, South of Firestone, to reflect commercial retail uses;

1.4.4.4 Require new developments to provide adequate on-site storage areas for collecting recyclable materials;

1.4.4.5 Encourage economic incentives to provide child care facilities.

- **Issue Five**

Downey has a superior geographic location in the Southern California Basin.

**Policies**

1.5.1 The City shall capitalize on the four freeways that virtually surround the community; the I-5, I-605, I-710 and the I-105.

1.5.2 The City shall capitalize on the regional opportunities offered by Downey's location and accessibility.

1.5.3 The City shall market the community at development conferences and when other opportunities arise;

**Programs**

The City shall:

1.5.1.1 Provide public information promoting the city's location and accessibility;

1.5.2.1 Consider strategies and programs advanced in the City's Economic Study prepared by Market Profiles;

1.5.3.1 Work to form a consensus with the local business community, Chamber of Commerce, merchant association, landowners and civic leaders to promote the community.

- **Issue Six**

Regional forces, such as demographic changes, traffic increases, the cost of land, proximity to ports and location in Los Angeles and Orange Counties, affect Downey.

**Policies**

1.6.1 The City shall monitor, review and comment on regional plans, as they relate to the City's General Plan.

1.6.2 The City shall monitor, review and comment on activities of neighboring cities, as they relate to the City's General Plan.

1.6.3 The City shall market the City's potential for commercial and manufacturing uses.

1.6.4 The City shall continue to advise the Public Utilities Commission of its concerns regarding railroad traffic through the community.

**Programs**

The City shall:

1.6.1.1 Comply with and incorporate the applicable requirements of the Air Quality and Congestion Management Plan;

1.6.1.2 Examine and promote land uses that encourage telecommuting, thus reducing VMT (Vehicle Miles Traveled) as required by the air quality plan;

1.6.1.3 Update the city's parking standards, especially shared parking.

1.6.2.1 Review other cities' projects for impacts on Downey;

1.6.2.2 Monitor other cities' land uses for compatibility with Downey;

1.6.2.3 Recognize the economic competitiveness between communities and consider land use decisions based on that competitiveness;

1.6.3.1 Monitor demographic shifts in the Southern California area as they affect land use decisions;

1.6.4.1 Cooperate with Southeast area cities in encouraging development and use of the Alameda transportation corridor.

1.6.4.2 Continue attempts to obtain the grade separation at the Southern Pacific Railroad and these crossings: Lakewood Boulevard, Brookshire Avenue, and Woodruff Avenue;

- **Issue Seven**

Several areas within the city are owned by and subject to regulations by other agencies, such as State, County, Federal, School, Railroad and other Utilities.

**Policies**

1.7.1 The City should designate some of these other public agency areas as Special Planning Areas.

**Programs**

The City shall:

1.7.1.1 Inventory the other public agency areas and tentatively identify future uses; some of the other agencies are:

Southern Pacific Railroad
Union Pacific Railroad
Downey Unified School District
Los Angeles County
General Telephone
So. Cal. Gas
RTD
Caltrans

1.7.1.2 Develop a specific plan, with open space and/or a park, for the Rockwell site if and when vacated;

1.7.1.3 Contact Department of Defense Officials regarding Rockwell and the cities' interest in its future;

1.7.1.4 Contact Downey's legislators about the Rockwell site;

1.7.1.5 Encourage the other public agencies to maintain their properties.

## I. DOWNEY

Downey, California
12.8 square miles
12 Miles southeast of Los Angeles Civic Center
Elevation 110 feet above sea level
Incorporation 1956
1990 Population 91,444

Downey is a full-service city located in the Southeast area of Los Angeles County. It is bounded by the Rio Hondo River, the San Gabriel River, Telegraph Road and Gardendale Street/Foster Road. The city is 12.8 square miles of relatively flat terrain.

Downey began as an agricultural community. Like most of the southeast area cities, it experienced rapid growth after World War II. The greatest growth came in the 1950's.

Forty years later Downey is again experiencing change. It is now a mature community. Communities go through cycles; they begin with new homes and buildings occupied by young families with children. As the children grow and leave home, school populations drop. Gradually the parents sell their homes and move away. Their homes are bought by young families with children, and the cycle begins again.

The Southern California basin is also changing. The Southern California Area Government (SCAG) predicts that the basin's population in the year 2010 will be 22 million people. Throughout the basin, there will be housing pressures, traffic congestion, poor air quality and increased density.

Like the rest of the basin, the ethnic mix of Downey's population is changing. Downey, once predominately Caucasian, is now 32% Hispanic.

## DOWNEY: Population 91,444[4]

Table 1-1

| Group | 1990 Population | % of 1990 Pop. | Change since 1980 |
|---|---|---|---|
| Anglos | 50,682 | 55% | -21% |
| Asians | 7,653 | 8% | 177% |
| Blacks | 2,876 | 3% | 272% |
| Latinos | 29,569 | 32% | 113% |
| Other | 664 | 1% | 156% |

22% of the population are senior citizens: 55 years and older. (See Exhibit 1-1). In the next ten years, another 10% of Downey's population will become senior citizens. Yet the age group between 25-34 is one of the largest in Downey; these are the people who are now having children. The number of school age children will increase in the next 10 years.

The average household size in Downey increased from 2.53 in the 1980 to 2.71 in the 1990 Census. This can be attributed to younger families replacing "empty nesters", illegal conversions, and room additions for extended family members.

### Land Use Opportunities and Constraints

One of Downey's greatest opportunities is its location. It is in the southeast section of Los Angeles County, close to Orange County. It is close to the ports; both Long Beach and Los Angeles Harbor. It is surrounded by freeways; the I-5, the I-605, the I-710 and new I-105. Respondents to the 1990 city-wide survey said Downey's location was one of the things they like best.

The change Downey is beginning to experience is also an opportunity. Most structures have a 40-50 year life. As they are replaced, there is an opportunity to change uses, to change development standards and to concentrate on good design. All these issues are addressed in the Land Use Chapter.

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[4] Los Angeles Times, May 6, 1991.

A major constraint in Downey is the fact that it is built-out. There are few parcels available for development. Most of the commercial and industrial parcels are too small for the type of projects built today.

Land prices in Downey are high. Downey is considered a premier community in the southeast area. It is clean, safe and has a strong sense of community. Recent sales include an industrial lot on Paramount, 21,600 sq. ft. sold in Nov. 1990 for $264,000, $12.20 a sq. ft.; in Feb. 1991, a larger industrial lot with a new concrete tilt-up building sold for $52.74 a sq. ft. and finally, a commercial site with access to Firestone Boulevard sold for $25.00 a square foot.

Downey's housing costs, like the rest of Southern California, have outpaced prices for everything else. In Downey home prices range from $100,000+ to $1,000,000 in 1990. "The median price of a home in California is $204,090, double the $101,900 national average. In California, with a minimum qualifying annual income of $63,685 only 21% of households can afford to buy a home. Nationwide, 49% of U.S. households can afford to purchase a home and need only a minimum qualifying income of $31,797." [5]

California has shifted employment to trade and services. Between 1982 and 1990, California manufacturing added 255,000 jobs, while the trade and service sector added nearly 2 million jobs.[6] Downey's land use diagram reflects the change. Less land is allocated to manufacturing and more to commercial than previous plans.

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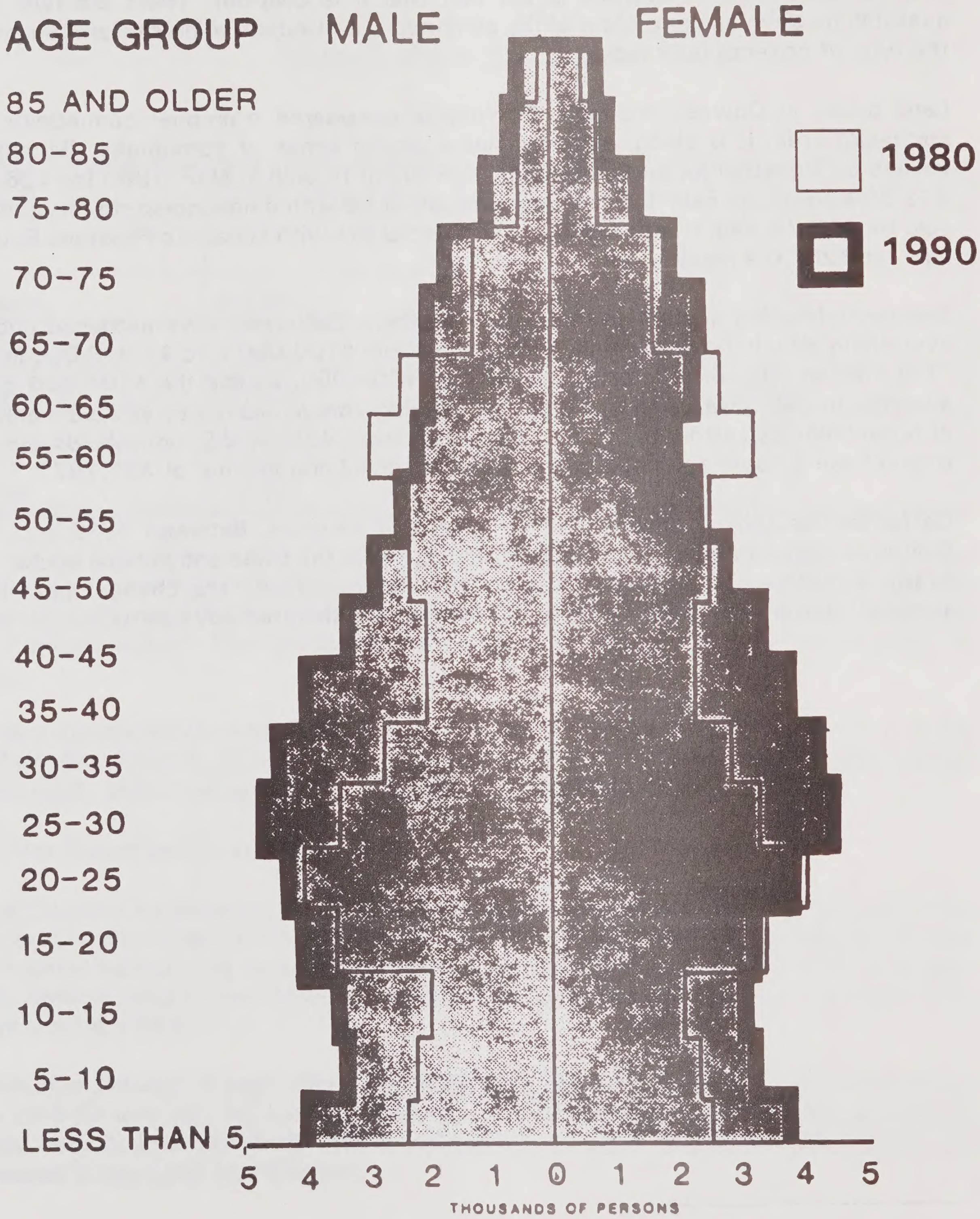
[5] "The Squeeze on the Middle Class Is A Chokehold on the State", L. A. Times, 9/30/91, Page B4.

[6] Ibid.

# AGE PYRAMID



**DOWNEY GENERAL PLAN**
**LAND USE CHAPTER**

Vision 2010

SOURCE: CITY OF DOWNEY & U.S. CENSUS BUREAU

## II. Land Use Diagram/Downey 2010

The land use diagram is one of the most visible components of the General Plan. The diagram illustrates where the city proposes commercial, industrial, residential, open space and public land uses. The land use diagram is a policy of the Plan; the zoning ordinance is the tool used to implement the land use diagram and other General Plan policies.

In the summer of 1990, a land use survey team surveyed and recorded all uses on all parcels in the city. They mapped the land uses. The land use map shows areas that have not developed as the 1990 plan proposed. Underdeveloped areas and areas with non-conforming properties were identified.

Statistics were also compiled. Each parcel was recorded by size and use. Acres of actual land use, not proposed land use, were figured (see Table 1-2). Since Downey strives to be a balanced city, the statistics are useful in determining whether the city has too many or too few acres of a particular land use. They also show trends in land use.

The General Plan Steering Committee

The General Plan Steering Committee examined all the information before they proposed the 2010 diagram. The committee studied selected areas of the city they believed may be in need of change. Telegraph Avenue, Florence Avenue, Firestone Boulevard, Imperial Highway, Paramount Boulevard, Lakewood Boulevard and Downey Avenue were all studied. The committee also took several tours of Downey. In proposing the 2010 diagram, the committee discussed existing land uses, age of buildings, trends in land uses, and finally, their vision of Downey in the year 2010.

There are few changes from the 1990 diagram to the 2010 diagram. Downey is a mature community. Table 1-3 shows the 2010 proposed land uses in acres and Table 1-4 shows the percent of changes in land use plan from the present to 2010. The proposed map, in many cases, reflects the present land use. There are sections of Fifth Street and Stewart & Gray that are designated medium density on the 1990 plan but still have single family residences. It is proposed that they will be designated low density in the 2010 plan.

The committee recognizes the economic opportunities on Firestone Boulevard. There is freeway access both east and west and the renovation of Stonewood Center is drawing new customers to the area. The boulevard has been designated general commercial. It is now manufacturing at the east and west ends, with some multi-family at the east end.

Downey has an abundance of strip commercial centers. To stimulate retail sales and concentrate commercial uses on highly visible intersections, the committee adopted the concept of "Neighborhood Nodes". These retail nodes are scattered throughout the city and are intended to serve the needs of the surrounding neighborhoods. Design Links will be developed to achieve an integrated design at the intersections and to establish neighborhood identity.

Paramount Boulevard, south of Firestone, has a mix of apartments, strip commercial and offices. The committee believes that the area is an opportunity for low rise, garden office development. Offices are a good buffer for the abutting residential neighborhoods. Paramount also has easy freeway access for employees and customers.

Lakewood Boulevard carries heavy volumes of traffic daily. It will have an off-ramp for the I-105 freeway as well as a green line train station. The economic potential for Lakewood is also great.

Florence Avenue is designated office, neighborhood node and residential. A small section at the west end was changed from commercial to low/medium residential.

Telegraph Road is in transition. It is a mix of medium density residential, office and commercial. Sections have been designated office, as support for the existing hospital and for the commercial uses being developed across the street in Pico Rivera.

Imperial Highway is also in transition. The Rancho Business Park now under construction and the possible redevelopment of Rockwell are opportunities to redesignate the area commercial or commercial/manufacturing instead of manufacturing.

Downey 2010, The Land Use Diagram of the General Plan, establishes the pattern of development for the next twenty years. The land use, by acres, is illustrated in Table 1-2.

## LEGEND

**RESIDENTIAL**
- ☐ Low Density
- ▨ Low/Med Density
- ▨ Medium Density

**COMMERCIAL**
- ▦ General Commercial
- ▦ Neighborhood
- ▨ Office

**MANUFACTURING**
- ▨ Commercial Manufacturing
- ▤ General Manufacturing

**OPEN SPACE**
- ▨ Parks, River Beds, Utility Easements, Golf Courses, Cemetery

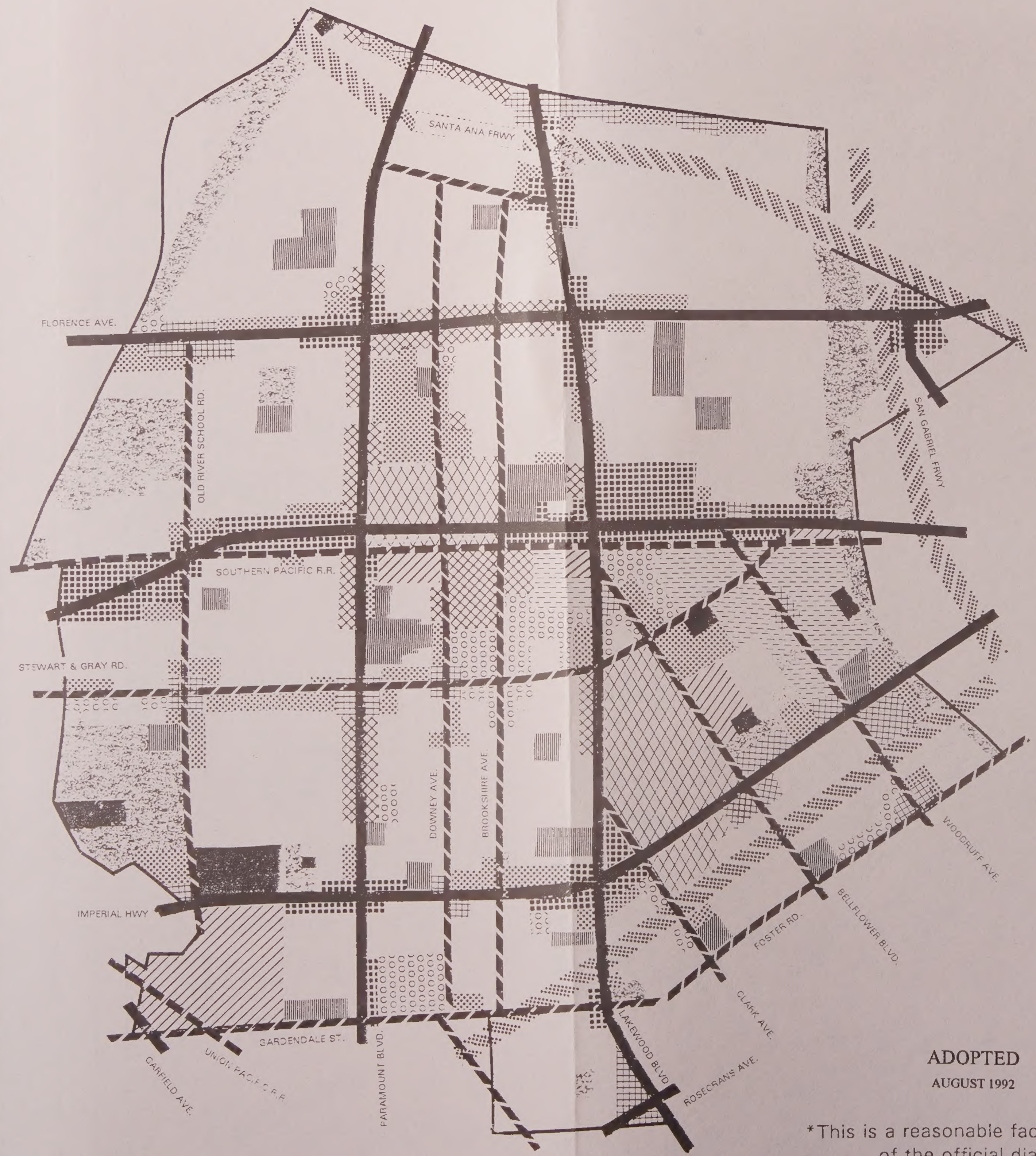
**SCHOOLS**
- ▥ Schools/Public & Private

**PUBLIC**
- ▨ Other Public

**MIXED USE**
- ▨ Mixed Use

**CIRCULATION**
- ▨ Freeway
- ━ Arterial
- ▨ Secondary
- ╍ Railroad

SOURCE: City of Downey



SANTA ANA FRWY
FLORENCE AVE.
OLD RIVER SCHOOL RD.
SAN GABRIEL FRWY
SOUTHERN PACIFIC R.R.
STEWART & GRAY RD.
DOWNEY AVE.
BROOKSHIRE AVE.
WOODRUFF AVE.
IMPERIAL HWY
BELLFLOWER BLVD.
FOSTER RD.
CLARK AVE.
GARDENDALE ST.
UNION PACIFIC R.R.
GARFIELD AVE.
PARAMOUNT BLVD.
LAKEWOOD BLVD.
ROSECRANS AVE.

ADOPTED
AUGUST 1992

*This is a reasonable facsimile of the official diagram.

# GENERAL PLAN LAND USE DIAGRAM 2010*

## EXHIBIT I-2

## LAND USE CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

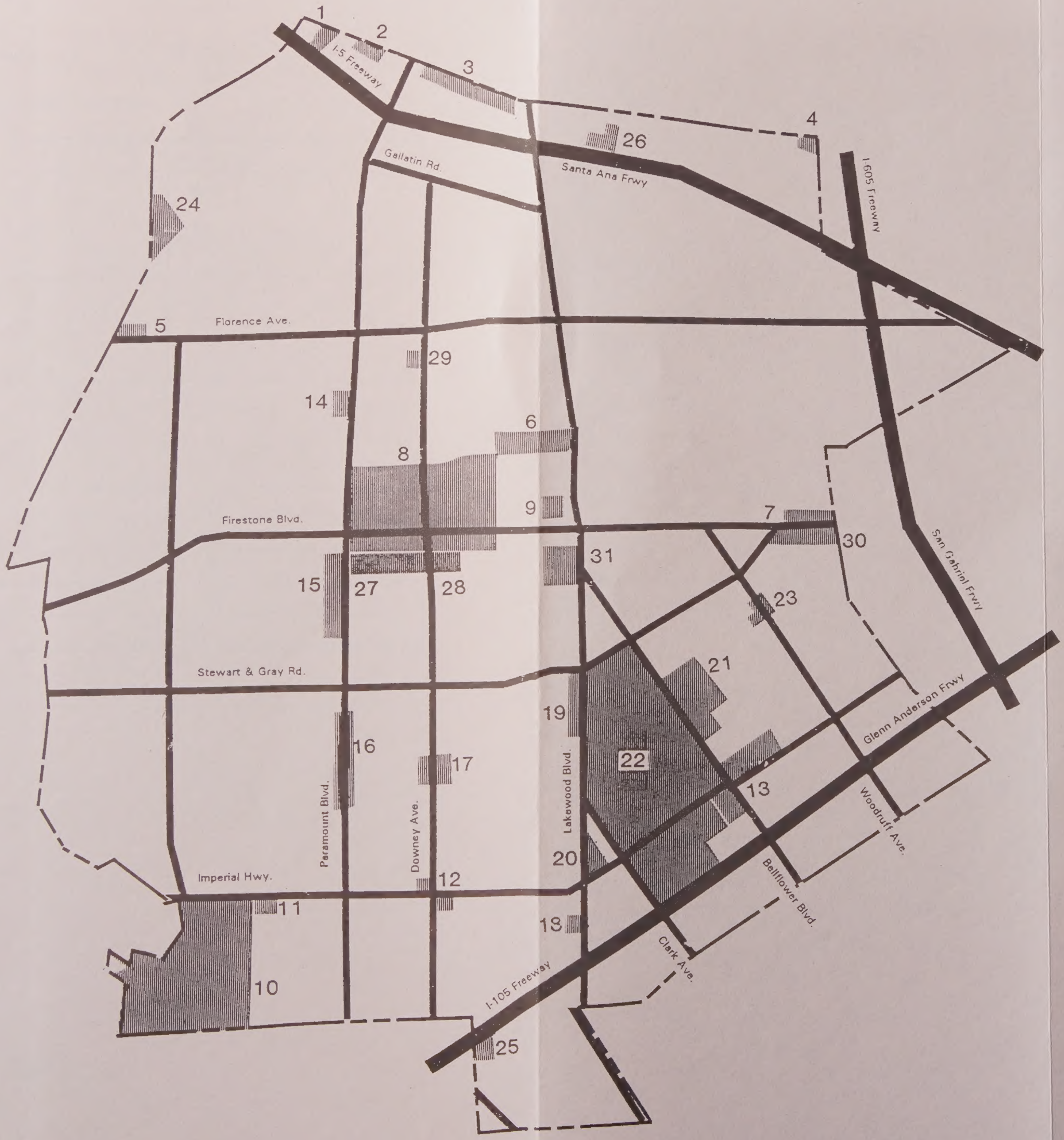
Vision 2010

## LEGEND

1. GEN COM TO PUBLIC
2. MED RES TO OFFICE
3. COMM TO OFFICE
4. PLANNED DEVELOPMENT TO LOW RES
5. COMM TO LOW/MED RES
6. MED RES TO LOW RES
7. MANUF., MED RES., COMM TO COMM
8. VARIOUS TO MIXED USE
9. COMM TO LOW RES
10. PUBLIC TO COMM/MANUF/SP
11. MED RES TO COMM
12. MED RES TO COMM
13. MANUF TO COMM
14. MED RES TO LOW RES
15. COMM TO OFFICE
16. COMM TO OFFICE
17. COMM TO MED RES
18. MED RES TO LOW RES
19. MED RES TO OFFICE
20. MED RES TO COMM
21. MANUF TO COMM/MANUF
22. MANUF TO MIXED USE
23. MANUF TO COMM
24. COMM/LOW-MED/MED RES TO LOW RES
25. MANUF TO LOW RES
26. SCHOOL TO LOW RES
27. LIGHT MANUF TO COMM/MANUF
28. LIGHT MANUF TO OFFICE
29. MED RES TO LOW RES
30. MANUF TO COMM/MANUF
31. MANUF TO COMM/MANUF

| | |
|---|---|
| LOW RES: | LOW DENSITY RESIDENTIAL |
| MED RES: | MEDIUM DENSITY RESIDENTIAL |
| COMM: | COMMERCIAL |
| MANUF: | MANUFACTURING |

SOURCE: City of Downey


1
2
I-5 Freeway
3
4
26
Gallatin Rd.
Santa Ana Frwy
I-605 Freeway
24
5
Florence Ave.
29
14
6
8
9
Firestone Blvd.
7
30
31
15
27
28
23
San Gabriel Frwy
21
Stewart & Gray Rd.
19
22
16
17
13
Glenn Anderson Frwy
Paramount Blvd.
Downey Ave.
Lakewood Blvd.
Woodruff Ave.
20
Imperial Hwy.
12
11
18
Bellflower Blvd.
Clark Ave.
10
I-105 Freeway
25

# CHANGES TO THE DOWNEY LAND-USE DIAGRAM 2010

## EXHIBIT I-3

## LAND USE CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

## Table 1-2

## 1990 Land Use Inventory

| Land Use Category | # of Acres | % of Total |
|---|---|---|
| Residential: | 3798 | 63% |
| Single-Family | 3256 | 54 |
| Two-Family | 112 | 2 |
| Multiple-Family | 430 | 7 |
| Commercial: | 574 | 9 |
| Office | 118 | 2 |
| Retail | 456 | 7 |
| Industrial: | 529 | 9 |
| Manufacturing | 529 | |
| Open Space | 568 | 9% |
| Schools | 308 | 5% |
| Public | 184 | 3% |
| Other (inc. vacant) | 110 | 2% |
| Total # Acres | 6071 | 100% |

## TABLE 1-3

## Proposed Land Use 2010

| General Plan 2010 | Acres | % of Total |
|---|---|---|
| Residential | 3764 | 62% |
| Low Density | 3280 | 54 |
| Low/Med | 114 | 2 |
| Medium | 370 | 6 |
| Commercial | 516 | 8 |
| Office | 167 | 3 |
| Neighborhood | 100 | 2 |
| Commercial | 249 | 4 |
| Industrial | 372 | 6 |
| Manufacture | 226 | 4 |
| Commercial/Manu | 146 | 2 |
| Open Space | 568 | 9 |
| Schools | 308 | 5 |
| Public | 184 | 3 |
| Mixed Use | 359 | 6 |
| **Total** | 6071 | 100% |

## TABLE 1-4

## PERCENT OF CHANGE IN 2010 PLAN[7]

| GENERAL PLAN DESIGNATION | 1990 PLAN (adopted in 1973) | 1990 Land Use Inventory | 2010 Plan | % change (1990 Plan to 2010 Plan) | % change (1990 Land Use Inventory to 2010 Plan) |
|---|---|---|---|---|---|
| Residential: | 3878 | 3798 | 3764 | -3% | -1% |
| Low Density | 3211 | 3256 | 3280 | +2% | +1% |
| Low/Medium | 193 | 112 | 114 | -41% | +2% |
| Medium | 474 | 430 | 370 | -22% | -14% |
| High | 14 | | | | |
| Commercial: | 637 | 574 | 516 | -19% | -10% |
| Office | 79 | 118 | 167 | +111% | +42% |
| Retail | 561 | 456 | 349 | -38% | -23% |
| Industrial: | 643 | 529 | 372 | -42% | -30% |
| General Manufacturing | 643 | 529 | 226 | -65% | -57% |
| Commercial/Manufacturing | N/A | N/A | 146 | N/A | N/A |
| Mixed Use | N/A | N/A | 359 | N/A | N/A |

## Land Use Designations & Density/Intensity

The 2010 Downey General Plan contains 12 land use designations. The designations define the type, density and intensity of development permitted throughout the city. The locations and extent of the General Plan land uses are identified on the Land Use Diagram.

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[7] No changes are proposed for Open Space, Schools, & Public; thus they are not included in this table.

### Residential

Low Density Residential-This category corresponds with the R-1/Single-Family Residential zone in the Downey Zoning Code. Residences in this category are single-family, detached houses with private yards. The density is 1-8.7 units per net acre.[8] Using the U.S. Bureau of Census estimated 1990 average for Downey of 2.71 persons per family, the population density for the land use is approximately 22 persons per acre[9].

Low/Medium Density Residential-This category corresponds with the R-2-Two Family Residential zone. These contain usable open space and can be either attached or detached. Permitted density is 9-17 units per net acre. The population density for the land use is approximately 46 persons per acre.

Medium Density Residential-This category corresponds with the R-3/Multiple Family Residential zone. Permitted density is 18-24 units per net acre. Residences in this category are usually apartment or condominium complexes. The population density for the land use is 65 persons per acre.

### Commercial

Office-This category corresponds with the C-P/Commercial Professional zone. Land uses are intended to be compatible with residential uses. Some of the uses permitted in the category were offices, including medical and dental, financial institutions including banks, small restaurants, coffee shops, flower shops, beauty & barber shops. Anticipated office developments range from low rise, garden offices to medical towers located near Downey Community Hospital. The floor area ratio (FAR) range is .5 to 5/1.

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[8] Net acres do not include streets.

[9] 8.7 units per acre is the net acreage, based on 5,000 square foot lots. However, Downey also has a significant amount of 6,000, 7,500, 8,500 and 10,000 square foot lots. In figuring maximum density and population, 8 units per acre was used.

Neighborhood Commercial-this category corresponds with the C-1/Neighborhood Commercial zone. Uses are intended to serve adjacent neighborhoods and are intended to be located in "neighborhood nodes". Uses include offices, shops such as camera, book, dry cleaners, delicatessen counters, drugstores, electrical appliance stores, grocery stores. The floor area ratio is .25.

General Commercial-this category corresponds with the C-2/General Commercial zone. Uses are intended to provide a wide variety of goods and services for the entire community. Uses include offices and large scale retail projects. The floor-area ratio range is .25 to 4/1.

**Industrial**

Commercial/Manufacturing-this category includes commercial and manufacturing uses and is intended to accommodate both, such as a business park. The floor area ratio range is .5 to .6.

Manufacturing-this category includes the M1 & M2/Light Manufacturing and General Manufacturing zones. Uses are restricted to certain industrial operations that are not considered environmentally detrimental to the general public. The floor area ratio is .6.

Public-this category includes public uses such as the Civic Center, the city yards, Seacca, Los Padrinos, Rancho Los Amigos Hospital and the RTD yard on Telegraph.

Open Space-this category includes open spaces such as utility easements, river beds, parks, cemetery and golf courses.

Schools-this category includes public and private schools.

Mixed Use-this category includes residential/commercial uses and commercial/manufacturing uses.

**Flood Areas**

The Federal Emergency Management Agency (FEMA) conducted a flood study of the Los Angeles River and released maps showing Downey might be inundated by flood waters in a 100 year flood (a 100 year flood is one of such intensity that it has a 1% change of occuring in any given year). The maps were challenged by cities along the flood routes, including Downey. December, 1992, is the date that new maps are expected to be issued.

### Solid Waste and Liquid Waste Sites

There are no known solid or liquid waste sites in Downey and none are planned.

### Mineral Resources

There are no known significant mineral resources in Downey.

### Helipads

Two helicopter landing sites currently operate within the City of Downey. Rockwell International Corporation operates a ground-level helipad east of Bellflower Boulevard and north of Independence Park. Corporate Bell Model 206 Jet Ranger helicopters execute approximately 10 flights per day between 8 a.m. and 5 p.m.

A second helicopter pad is located at the Downey Community Hospital. Lifelight provides emergency air service to this helipad, and operations are estimated 6 flights per month (these flights are for life-threatening emergencies only; they are not commercial flights). There is also an inactive helipad at Rancho Los Amigos Hospital.

### Noise Sensitive Land Uses

Noise sensitive land uses include, but are not limited to: residences of all types, hospitals, rest homes, convalescent hospitals, places of worship, libraries and schools. Proposed residential and other noise sensitive projects impacted by 60 dB CNEL or greater should be required to prepare an acoustical analysis to ensure acceptable interior and exterior noise levels. These analyses will be prepared by a recognized acoustical engineer with experience in environmental noise assessment and noise control design and be submitted to Downey's Community Development department for review and approval. A policy of the Noise Chapter of this General Plan requires noise mitigations for developments locating near noise sources.

### Redevelopment Areas

Downey Community Development Commission

History

The Downey Community Development Commission was formed in 1978 to address the issue of community revitalization. The Commission is the City Council. Together with city staff it is referred to as the Downey Redevelopment Agency. The Agency territory comprises several sections of the City. A map of the redevelopment areas is in the Economic Development Chapter.

### Original Project Area

The original project was adopted in August of 1978 and encompassed areas along Firestone Boulevard in the downtown, from Brookshire Avenue to Paramount Boulevard. The original project included an area on Firestone Boulevard, east of Stewart and Grey, an area west of Downey Community Hospital and a strip of four blocks on south Paramount Boulevard. These original areas have the power of eminent domain, limited by state law in duration until October of 1992.

### Amendment No. One

The project was first amended in August of 1979. This amendment was technical in nature, adding the then zoning and general plan designations to the plan. No additional land was included.

### Amendment No. Two

The project was amended in October, 1980. A two-block area, that now includes Mimi's Cafe and the Embassy Suites Hotel was added. These two developments generate significant property tax increments for the Agency, as well as bedroom and sales taxes for the City. Amendment No. Two includes eminent domain, which is also limited in duration until October, 1992.

### Amendment No. Three

Amendment No. Three originally included much of Downey's commercial and industrial areas, as well as significant residential areas. The present day Rancho Los Amigos Hospital was included. Amendment No. Three failed; however it became the basis for two future amendments.

### Amendment No. Four

One of the more viable redevelopment areas coming out of Amendment No. Three was the Firestone corridor. Amendment No. Four was completed in July of 1987. It includes both sides of Firestone Boulevard, from the San Gabriel River to Old River School Road. It also expanded the areas in downtown available for redevelopment assistance. Amendment No. Four does not contain the power of eminent domain and as a practical matter cannot assemble land for development projects.

## Amendment No. Five

Amendment No. Five is essentially three amendments in one. Again, a product of the failed Amendment No. Three, this amendment added the area north of Downey Community Hospital, the areas adjacent to the Santa Ana and San Gabriel River Freeways and three corners of Lakewood and Gallatin. Two of the plan amendments were completed in 1991. Amendment No. 5B, at the freeway interchange, is not yet completed. The plan contains limits on eminent domain, based on owner's preferences.

## Woodruff Industrial Project

The Woodruff Industrial Project was formed in July, 1987. It includes much of Downey's older industrial areas on Woodruff Avenue, south of Stewart and Grey Road and north of Columbus High School.

## Owner Participation and Development Agreements

The Agency has completed over nineteen owner participation and development and disposition agreements since 1978. The most visible projects are:

220 room Embassy Suites Hotel
150,000 square foot May Company added to Stonewood Center during the Center's revitalization in 1990
158,000+ square feet of offices
71,000 square feet of commercial center
30,000 square feet of industrial development
126 units of senior housing development
247 condominium and apartment units
Acura car dealership
Car Wash USA
Cardona Square
Downey National Bank building
Zillner Community condominiums
Meadow Park condominiums.

## Zoning Flexibility

The General Plan Land Use Diagram is a general policy statement. Specific land use interpretation is contained in the zoning map. To provide flexibility while retaining control over land uses, the Downey Zoning Code allows conditional use permits within each zone. Conditional use permits (CUP's) allow certain specified land uses, provided that specific conditions are met. Design standards, design review and City staff review and monitoring ensure that a project not permitted by right within a particular area is individually investigated and analyzed before a CUP is issued.

Zoning variances are also granted when findings of hardship related to the land are made. In some cases, based upon the shape of the land or other land related causes, it is difficult to meet the development standards of the zoning code. A variance is granted after an investigation and analysis shows that hardship is present.

## III. BUILDING INTENSITY

The General Plan is required to contain standards for building intensity. These standards should define the most intensive building concentration for the land use designation. Building intensity is used to identify building concentration, potential traffic problems, housing policies and effects on sewer, utility, storm drain and landfill systems.

Downey has adopted Floor-Area Ratios (FAR's) for commercial and industrial land use designations. Floor area ratio, the ratio of building floor area to the total building site, is a useful method of determining "ultimate build-out" or building intensity. An FAR of 2/1 means that the total building square footage permitted is twice the square footage of the lot. A 5,000 square foot lot could have a 10,000 square foot building.

Table 1-5 indicates building intensity for the commercial and industrial areas of the general plan.

## TABLE 1-5

## EXISTING FLOOR AREA RATIOS & BUILDING INTENSITY

| Land Use Designation | Existing Floor Area (Ratio & Range) | Existing # of Acres | Potential Building Intensity (sq. ft.)[10] |
|---|---|---|---|
| Office | .25 to 4/1 | 118 | 20,560,320 |
| General Commercial | .29 to .5 | 456 | 9,933,858 |
| Commercial/ Manufacturing | N/A | N/A | N/A |
| Manufacturing | .45 to .79 | 529 | 18,204,160 |

---

[10] Building intensities are potential, not existing.

# TABLE 1-6
# PROPOSED FLOOR AREA RATIOS, PROPOSED INTENSITIES, PERCENT OF DIFFERENCE TO EXISTING FAR INTENSITY

| Land Use Designation | Proposed Floor Area Ratio & Range | Proposed # of Acres | Proposed Intensity | Difference from Existing Intensity |
|---|---|---|---|---|
| Office | .5/1 to 5/1<br>Garden Office = 80% @ .5/1,<br>Hospital/Medical = 20% @ 5/1 | 167 | G/O = 2,909,808<br>H/M = 7,274,520 | -50% |
| Neighborhood Commercial | .25/1 | 100 | 1,089,000 | N/A |
| General Commercial | .25/1 to 4/1<br>General Commercial = 80% at .25/1<br>Office = 20% @ 4/1 | 249 | G/C = 2,169,288<br>Office = 8,677,152 | +9% |
| Commercial Manufacturing | .6/1 to 4/1<br>Manufacturing = 70% @ .6/1<br>Office = 10% @ 4/1<br>Retail = 20% @ .25/1 | 146 | M = 2,671,099<br>O = 2,543,904<br>Retail = 317,988 | N/A |
| Manufacturing | .6//1 to 4/1<br>Manufacturing = 90% @ .6/1<br>Office = 10% @ 4/1 | 226 | M=5,316,062<br>O=3,937,824 | -49% |
| Mixed Use[11] | Downtown:<br>Med. Residential = 30% @ 24du/a<br>General Commercial = 70% @ .25/1 | 107 | 800 units<br>G/C = 815,661 | N/A |
| | Rockwell & L.A. County<br>Med. Residential = 4-11% @ 24du/a<br>Open Space = 4-8%<br>.6/1 to 4/1<br>Commercial/Manu = 81-92% | 252<br>(10 to 20 acres) | 250 to 700 units<br>M=3,732,221 to 4,244,486<br>O=3,554,496 to 4,042,368<br>R=444,312 to 505,296 | |

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[11] The Mixed Use figures are concept only; the actual numbers will be determined when the specific plans for the areas are written.

## IV. DOWNEY'S UNIQUE CHARACTER

- **Background**

The high quality of the city and its' single family character are Downey's primary assets. Downey has long had the reputation of being the premier community in the Southeast area of Los Angeles County. It is known for the quality of its schools, its public facilities and its residential neighborhoods. There are now second and third generation Downeyites in the community. People are proud that they live in Downey.

### Owner Occupied Housing

To retain the excellent housing stock Downey is known for, owner occupied housing is encouraged. Owner occupants are often more aware of what needs to be done to maintain the property and they take more pride in their property than absentee landlords. Planned Unit Developments (PUD's) are a way to offer more affordable housing in a community while encouraging owner occupancy. Condominiums and Townhouses are examples of Planned Unit Developments. Downey will continue to encourage ownership housing with PUD overlay zones.

### Residential Density & Projected Population

The 1990 census showed 91,444 persons living in Downey. Since Downey is built-out, the community has elected to retain the existing residential density standards. Residential density standards are:

| | |
|---|---|
| Low Density | 1-8.7 units per acre |
| Low/Medium Density | 9-17 units per acre |
| Medium Density | 18-24 units per acre |

Using the U.S. Bureau of Census estimated average for Downey of 2.71 persons per family, the maximum projected population for Downey 2010 is 104,603. This is an increase of 13,159 persons within the the twenty year life of the plan. This averages about 658 persons per year. Most of the increase should occur as a result of increasing household size.

## TABLE 1-7

## DOWNEY: 2010 Population 104,603

| Residential Land Use Designation | Density | # of Acres 2010 | Max. # of Units | Population (x 2.71) |
|---|---|---|---|---|
| Low Density | 1-8 units/acre | 3280 | 26,240 | 71,110 |
| Low/Medium Density | 9-17 units/acre | 115 | 1,955 | 5,298 |
| Medium Density | 18-24 units/acre | 371 | 8,904 | 24,130 |
| Mixed Use[12] | | | | |
| Downtown | 24 units/acre | 33.3 | 800 | 2,168 |
| Rockwell | 24 units/acre | 29 | 700 | 1,897 |
| Total | | 3828.3 | 38,599 | 104,603 |

**Second Unit Development Areas**

The State of California encourages the construction of second units on residential lots. These may be units for the elderly, "granny flats" or they may be second units permitted as a public hearing item. Downey permits the latter, Second Unit Developments, in selected areas . The Housing Chapter of the plan contains a detailed discussion of the Second Unit Development Areas and their standards.

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[12] The Mixed Use figures are concept only; the actual acreage allocated to residential use will be determined when the specific plans for the areas are written.

### Senior Citizen Housing

There is a discussion of senior citizen housing in the Housing Chapter. Senior's housing was not figured in the projected population because the housing is constructed on a case by case basis. There is no way to predict how many more units will be permitted in the next twenty years. Seniors housing is permitted in the area around Downey Community Hospital and in the historic downtown area.

### Property Maintenance

Downey's position as a premier community depends on property maintenance by all property owners. The City supports pro-active code enforcement. Code enforcement officers actively patrol neighborhoods and cite property owners for lack of maintenance Pro-active code enforcement becomes more important as properties age. To aid code enforcement officers, a property maintenance ordinance should be adopted. The ordinance would outline a method of citing persons for property maintenance and identify those offences that would be cited.

The Community Development Block Grant programs, paint and fix-up, Neighborhood rehab programs and low interest home improvements loan programs are all methods the city uses to assist persons in keeping up their homes. These programs should be continued.

Another method the city uses to encourage pride of ownerships is the neighborhood TASK FORCE, including Keep Downey Beautiful. Previous successful neighborhood clean-up efforts include the Elm Vista and the Cheyenne Street projects. They are volunteer efforts intended to upgrade and maintain targeted areas and should be continued.

## • Downey: A Balanced Community

Downey represents a balanced community between single family residential, multi-family residential, medical, commercial, industrial, schools and open space. The City should strive to retain the balance between uses. This includes monitoring land uses to retain the balance and to diversify the tax base.

Some land uses contribute more to the city's tax base than others. Truck terminals and warehouse distribution use city services such as streets, which are expensive to maintain. They also create noise and air pollution. The only revenue the city gets from the uses are property taxes. The city should encourage other uses that contribute to the city's tax base.

- **Downey: A Mature Community**

Downey is a mature community, experiencing the forces of change. Downey's greatest period of growth was the 1950's. The buildings constructed then are 40-50 years old, and ready to be either renovated or replaced. This is an opportunity for Downey to improve the quality of construction and design. It is also an opportunity to save and renovate old structures that are important to the history of the city. Finally, it is an opportunity to change the land use designations in certain areas of the city.

### Design Guidelines

Design Guidelines will be available to the public. They are intended to inform the public about the design process and the requirements of the Design Review Board. The guidelines will be consistent with the Design Chapter of the General Plan. Responsibilities of the Design Review Board include quality design and construction.

### Reuse of Older Structures

There are many older structures in Downey that are a symbol of Downey's past. Instead of tearing them down, the city encourages their "adaptive re-use". Example of adaptive re-use include the Gypsy Johnson home that is now the Assistance League headquarters and the Harriman House at Rancho Business Park that is required to be preserved and re-used.

### Mixed Use Designation

Most zoning codes, including Downey's, segregate land uses; thus residential uses are clustered together with no commercial or industrial uses among them. The Downey Land Use Diagram has identified two areas for mixed uses. One area is the historic downtown, where residential and commercial uses are recommended. The area is under-used. Persons living in the downtown will stroll around, patronizing the shops and the restaurants envisioned for the area.

The second area designated for mixed use is the Rockwell/L. A. County site. It is over 200 acres. If Rockwell leaves, there will be an opportunity for development. Open space, residential, commercial and manufacturing uses are all appropriate for the site. The residential units would be located on the L. A. County site south of Imperial Highway.

### General Plan Review

Because Downey is experiencing the forces of change, the General Plan should be reviewed annually. Land use designations should be monitored to determine if they are still relevant, if they benefit the city financially and if the balance between uses is being retained.

- **Land Use Patterns**

Land use patterns in the city need to be reviewed. The Land Use Chapter of the General Plan is the policy statement for land use; the zoning ordinance carries out the policies. There are many parcels in Downey with land uses that are inconsistent with the zoning. The city should eliminate the inconsistent zoning where practical, and should revise the zoning ordinance.

### Development Standards

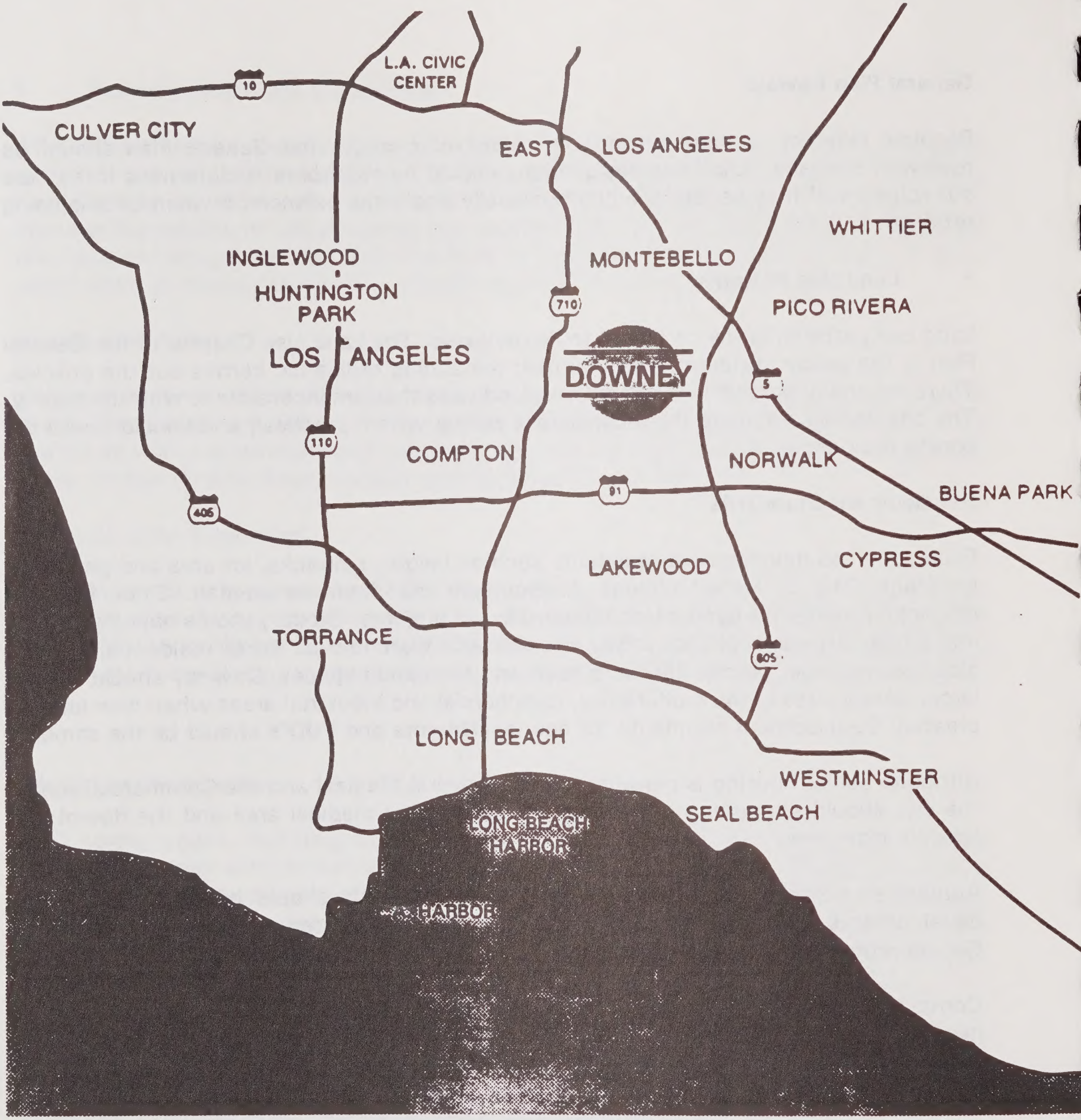
Each zone has development standards such as height, setbacks, lot area and permitted coverage. The City shall change development standards as needed. Since Downey developed, there has been a trend toward larger projects. Grocery stores have developed into supermarkets, appliance stores into discount warehouses. Large residential projects also require larger parcels for more open and recreation spaces. Downey should require larger parcel sizes in the multi-family, commercial and industrial areas when new lots are created. Development standards for new apartments and PUD's should be the same.

Although senior housing is permitted in the Hospital-Medical and the Commercial zones, the city should encourage its location in the hospital medical area and the downtown specific plan area.

Adequate on-site storage areas for recyclable materials should be required for new developments. This is to encourage recycling and is consistent with the policies of the Conservation Chapter requiring recycling.

Commercial and industrial uses should be reviewed and the zoning code updated as needed. Good quality child care facilities should be encouraged. Locating child care facilities on-site in large commercial and industrial projects would reduce employee abstenteeism and boost employee morale.

The American Planning Association is concerned about land uses located near electro-magnetic fields, usually electric transmission lines and transformers. At this time, there is no conclusive data about the hazards of living or working near these facilities. However, several studies are being done. Developers interested in locating projects near electro-magnetic fields should provide information evaluating the effects of the electro-magnetic field on their project.


L.A. CIVIC CENTER
10
CULVER CITY
EAST LOS ANGELES
WHITTIER
INGLEWOOD
MONTEBELLO
HUNTINGTON PARK
710
PICO RIVERA
LOS ANGELES
DOWNEY
5
110
COMPTON
NORWALK
91
BUENA PARK
405
CYPRESS
LAKEWOOD
TORRANCE
605
LONG BEACH
WESTMINSTER
SEAL BEACH
LONG BEACH HARBOR
L.A. HARBOR

# REGIONAL LOCATION
## DOWNEY GENERAL PLAN

Vision 2010

## V. REGIONAL LOCATION

Downey has a superior geographic location in the Southern California Basin. It is virtually surrounded by freeways: I-5 on the north, I-605 on the east, I-105 on the south and the I-710 on the west. The location is an opportunity for the city to attract businesses and diversify the tax base. The city should promote Downey's location at marketing conferences and continue to work with the Chamber of Commerce promoting the community's advantages.

### Regional Forces

Regional forces, such as demographic changes, traffic increases, the cost of land, proximity to ports and location in Los Angeles and Orange Counties, affect Downey. The Southern California Basin has grown to the point that regional agencies have been created to deal with some of the problems. The Los Angeles County Transportation Commission (LACTC) is developing a Congestion Management Plan (CMP) which might affect land use decisions in Downey. The Air Quality Management District (AQMD) regulations also affect Downey. Telecommuting is a way to reduce Vehicle Miles Traveled (VMT) and meet some of the requirements of the CMP and the AQMD.

Parking standards need to be reviewed. Traffic is increasing, and removing on-street parking will be necessary to create new traffic lanes. Shared parking should be considered as a means of meeting parking requirements.

Other cities' land uses and projects should be reviewed for their impact on Downey. Land uses should be compatible with Downey. Downey's land use decisions should be based on demographic shifts in Southern California and also on competitiveness with neighboring cities.

The Alameda Corridor is being proposed to shift truck traffic from city streets to Alameda Street. It is a regional effort to require trucks to use Alameda Street, in the City of Los Angeles, to and from the ports. This would be safer for pedestrians and motorists. The city should encourage the creation of the Corridor.

Railroad activity in Downey generates noise, is a safety hazard and slows down or stops traffic. The city should continue attempts to obtain grade separations at the Southern Pacific Railroad and Lakewood Boulevard, Brookshire Avenue, and Woodruff Avenue.

## Other Agencies

Several areas within Downey are owned by and subject to regulations by other agencies, such as State, County, Federal, School, Railroad and other Utilities. Some of the areas should be designed as future specific plan areas. Rockwell International is the most prominant site that should have a specific plan. Rockwell is presently owned by the Federal Government. The Department of Defense should be notified and reminded regularly of the cities' interest in the site. Although Downey has no jurisdiction over other agencies properties, the city should encourage maintenance and communication with agencies.

## GLOSSARY

**NEIGHBORHOOD NODE**-neighborhood shopping and office areas at selected, highly visible intersections. They are intended to serve surrounding neighborhoods.

**OVERLAY ZONE**-an additional level of regulation superimposed upon existing zoning in specified areas. Subsequent development must comply with the requirements of both the overlay zone and the base district."[13]

**PLANNED UNIT DEVELOPMENTS**-A self-contained development, often with a mixture of housing types and densities, in which the subdivision and zoning controls are applied to the project as a whole rather than to individual lots as in most subdivisions. Therefore, densities are calculated for the entire development, usually permitting a trade-off between clustering of houses and provision of common open space."[14]

**SPECIFIC PLAN**-A zoning mechanism for a special area, it contains development standards, permitted uses and other regulations for the area. It can also provide phased development like the Rancho Business Park.

a:landuse

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[13] Page 164, General Plan Guidelines.

[14] Page 26, The Job of the Planning Commissioner, Albert Solnit, Planners Press, American Planning Association, Chicago, Illinois, 1987.

# D·O·W·N·E·Y GENERAL PLAN

Paramount Bl

# CIRCULATION CHAPTER

# CIRCULATION CHAPTER

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TECHNICAL APPENDIX

The Circulation Chapter is not just a transportation plan, it is an infrastructure plan. A sound and safe circulation system not only allows for the efficient movement of people and goods in and around Downey, it also provides an efficient system for the delivery of services to the community. Downey's Circulation Chapter establishes goals, policies and programs that will improve the circulation system in the City.

The State of California's General Plan Guidelines describe how the provisions of a circulation element affect a community's physical, social and economic environment:[1]

- *Physical*: The circulation system is one of the chief generators of physical settlement patterns, and its location, design and constituent modes have major impacts on air quality, plant and animal habitats, environmental noise, energy use, community appearance and other environmental components.
- *Social*: The circulation system is a primary determinant of the pattern of human settlement. It has a major impact on the areas and activities which it serves, on community cohesion, and on the quality of human life. The circulation system should be accessible to all segments of the population, including the disadvantaged, the young, the poor, the elderly and the handicapped.
- *Economic*: Economic activities normally require circulation for materials, products, ideas or employees, and thus the viability of the community's economy is directly affected by the circulation element. The efficiency of a community's circulation system can either contribute to or adversely affect that community's economy.

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[1] The following text is from the *General Plan Guidelines*; State of California, 1990, Pages 82 and 83.

Downey's Circulation Chapter follows State guidelines and identifies "the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use chapter of the general plan" {Section 65302(b)}. Issues that are of particular concern to Downey are:

- Street capacity and level of service;
- the new Glenn Anderson Freeway;
- Public transit;
- Rail lines;
- Truck movements in the City;
- Non-motorized transportation; and
- Infrastructure improvements.

A glossary has been provided at the end of the Chapter to define key terms.

---

*"Los Angeles County---home of 8,863,164 people---has 5,596,100 licensed motorists." (Los Angeles Times)*

## CIRCULATION ISSUES

### Issue One

Certain City intersections are operating at Level of Service "F".

### Issue Two

Impacts on local street systems will occur with increased traffic on area freeways, especially when the Glenn Anderson Freeway is opened.

### Issue Three

Urbanized counties in California are required to adopt Congestion Management Programs that will maintain and improve current movement of vehicular traffic as development occurs.

### Issue Four

Public transit serves a minimal role for commuters within the City.

### Issue Five

The Southern Pacific Railroad Line divides the City, and as a result, it does not integrate with the surrounding properties in the City.

### Issue Six

Excessive noise, dust and traffic hazards are associated with truck movement through the City.

### Issue Seven

Non-motorized means of transportation will become increasingly important as the reliance upon vehicular transportation is required to be reduced.

### Issue Eight

Downey's infrastructure (sewer, water, and drainage line and facilities) are older and some are nearing capacity.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address circulation issues in the City of Downey.

### *GOALS*

To develop a network of streets and pedestrian areas which promote the safe and efficient movement of people and goods.

To achieve an efficient and effective system for the delivery of services in the community.

*"Mid-year figures show that of the 23,453,143 vehicles registered in the state, 6,090,615 are in L.A. County." (Los Angeles Times, September 19, 1991)*

- **Issue One**

Certain City intersections are operating at Level of Service "F".

**Policies**

2.1.1 The City shall promote traffic safety by improving the level of service on major streets, where possible.

**Programs**

The City shall:

2.1.1.1 Maintain intersection service levels of major streets at "E" or better, excepting those intersections currently operating at Level of Service "F".

2.1.1.2 Support the use of non-vehicle improvements (e.g. improved signalization, parking management) to reduce peak-hour congestion and to reduce vehicle miles travelled (VMT).

2.1.1.3 Discourage parking on arterial streets to improve safety and increase traffic flow.

2.1.1.4 Pursue implementation of development fees to require new developments and expansions of existing developments to pay the cost of circulation improvements needed to serve them.

2.1.1.5 To alleviate traffic congestion on freeways and therefore on local streets, encourage the development of High Occupancy Vehicle (H.O.V.) lanes within the existing right-of-way of the I-5 and the I-605 freeways, and retain the HOV lanes proposed for the I-105 Freeway.

- **Issue Two**

Impacts on local street systems will occur with increased traffic on area freeways, especially when the Glenn Anderson Freeway is opened.

**Policies**

2.2.1 The City shall pursue the standard for transportation corridors within the City that correlate with land use demands.

2.2.2 The City shall continue to promote traffic safety to protect residential neighborhoods.

**Programs**

The City shall:

2.2.1.1 Identify and concentrate land uses with high traffic generation near major transportation corridors and public transit facilities.

2.2.1.2 Complete a traffic study within five years of completion of the Glenn Anderson Freeway (I-105).

2.2.2.1 Promote the enforcement of City speed limits to protect residential streets from business and commuter through traffic.

- **Issue Three**

Urbanized counties in California are required to adopt Congestion Management Programs that will maintain and improve current movement of vehicular traffic as development occurs.

**Policies**

2.3.1 The City shall comply with provisions of the Congestion Management Program.

**Programs**

The City shall:

2.3.1.1 Review the Circulation Chapter on an annual basis for consistency with the Congestion Management Program adopted by the County.

2.3.1.2 Coordinate with the County in identifying the Level of Service of those monitoring locations in the City identified in the Congestion Management Program.

2.3.1.3 Develop and continue to maintain a seven-year Capital Improvements Program {Transportation System Management (TSM)} to address deficiencies on existing streets.

2.3.1.4 Adopt a Transportation Demand Management (TDM) ordinance as required by the Congestion Management Program.

- **Issue Four**

Public transit serves a minimal role for commuters within the City.

**Policies**

2.4.1 The City shall consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped, school children and the general public.

2.4.2 The City shall coordinate with other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City.

**Programs**

The City shall:

2.4.1.1 Use Proposition "A" and "C" funds to improve public transit and paratransit needs in the City, including bus benches and shelters, bus pads and resurfacing streets.

2.4.1.2 Consider expanding its existing intracommunity transit service to include a fixed-route service from such areas as Stonewood Shopping Center, Downtown, the new Green Line Station, school routes and major employers, such as Rockwell.

2.4.2.1 Encourage Downey businesses to provide employee information to public transit authorities to assist in their planning for public transit services.

2.4.2.2 Monitor the development of the RTD's additional park-and-ride facilities and encourage additional park-and-ride routes and facilities in Downey.

2.4.2.3 Review projected development and redevelopment of land with public transit authorities to determine whether alterations to service will be required.

- **Issue Five**

The Southern Pacific Railroad Line divides the City, and as a result, it does not integrate with the surrounding properties in the City.

### Policies

2.5.1 The City shall work with the Southern Pacific Railroad Line and developers to help integrate the railroad with its surroundings.

2.5.2 The City shall request Southern Pacific Railroad cooperation in facilitating access to Downey Community Hospital.

### Programs

The City shall:

2.5.1.1 Require contributions from developers adjoining railroad rights-of-way to pay for improved signals, rubberized railroad crossings, and related crossing improvements.

2.5.1.2 Require developers adjoining railroad rights-of-way to contribute towards an eventual grade separation.

2.5.1.3 Purchase or lease peripheral railroad land for landscaped strips, sound walls, bicycle routes, and other open space/recreational uses, when possible.

2.5.2.1 Request that the Southern Pacific Railroad construct grade separations at these crossings: Lakewood Boulevard, Brookshire Avenue and Woodruff Avenue.

- **Issue Six**

Excessive noise, dust and traffic hazards are associated with truck movement through the City.

### Policies

2.6.1 The City shall encourage the safe and efficient movement of truck traffic through the City.

2.6.2 Land uses promoting the use of heavy trucks should be discouraged within the City.

### Programs

The City shall:

2.6.1.1 Enforce truck traffic to use designated truck routes in the city.

2.6.1.2 To control truck parking in the City, insure that restricted parking zone ordinances are enforced and investigate the feasibility of other control mechanisms.

2.6.2.1 Require public review of land uses generating heavy truck traffic.

- **Issue Seven**

Non-motorized means of transportation will become increasingly important as the reliance upon vehicular transportation is required to be reduced.

**Policies**

2.7.1 The City shall encourage walking and bicycling as attractive alternatives to vehicular transportation.

2.7.2 The City shall require a Master Plan of street lights and sidewalks throughout the City.

**Programs**

The City shall:

2.7.1.1 Establish bicycle trails and pedestrian walkways within the proximity of compatible residential, commercial and industrial areas, and link them with other open space and recreational areas.

2.7.1.2 Consider the installation of sidewalks to and from the new Green Line station on Lakewood Boulevard, to Imperial Highway and Rosecrans Avenue, which are served by scheduled bus lines.

2.7.2.1 Adopt a Master Plan for installation of sidewalks for major arterials, collector streets and school routes.

2.7.2.2 Require sidewalks in new developments and major remodeling consistent with the sidewalk Master Plan.

- **Issue Eight**

Downey's infrastructure (sewer, water, and drainage lines and facilities) are older and some are operating near capacity.

**Policies**

2.8.1 The City's seven-year Capital Improvements Program should address the following improvements, as necessary:

Street systems

Sewer facilities

Water supply

Drainage facilities

Other major capital investments necessary to sustain the City's growth and operation.

**Programs**

The City shall:

2.8.1.1 Continue to rely upon funding programs that are earmarked for the continued maintenance and improvement of these systems.

2.8.1.2 Develop a system which will prioritize the use of funds for the completion of these improvements.

## I. MAJOR THOROUGHFARES AND TRANSPORTATION ROUTES

The circulation system in Downey ranges in size from freeways to sidewalks. It is used for people and goods to move both between and within the community. Downey is a mature city, many of its circulation problems have been built into its transportation system. The solutions to these problems are limited and any potential solutions must be carefully evaluated.

- **Streets and Highways Classification**

Downey's local circulation system not only moves vehicles within the city, but also moves vehicles between Downey and adjacent cities. The City's Master Plan of Streets and Highways (Exhibit II-1) provides a hierarchy of roadways that are designated to meet circulation needs throughout Downey. Because of its land use significance, the system has a direct effect on all other chapters of the General Plan. Additionally, the street and highway system is one of the most important, and possibly the most permanent, land use feature in Downey. It forms a skeletal framework of the city, controlling block sizes and shapes, neighborhood boundaries, provides utility easements and open areas.

The streets and highways system in Downey is made up of a series of roadway types designed to serve the transportation needs of the City and surrounding areas. The following classification of roadways is based upon the level of traffic service and transportation function they serve. Table II-1 provides additional characteristics of the following roadway types.

### TABLE II-1

### ROADWAY DEVELOPMENT STANDARDS

| Roadway Type | Ultimate Right-of-Way | Number of Lanes |
|---|---|---|
| Major Arterial | 100 feet | 4 to 6 lane divided roadway |
| Secondary Highway | 80 feet | 2 to 4 lane divided roadway |
| Collector | 60 feet | 2 to 4 lane undivided roadway |
| Local | Varies | Varies |

### Freeways

The major circulation system within the Southern California region is the freeway system. Freeways offer high-speed roadways for cars and trucks and have become the basic travel network for movement between cities. Freeways serve the regional transportation demands for the distribution of goods and services, with trucks carrying the majority of goods consumed within the community. Freeways can also be physical barriers which tend to divide the boundaries of the City.

Downey is centrally located between several Southern California freeways. The Santa Ana Freeway (I-5) runs in a northeast-southwest direction in the northern portion of the City. The San Gabriel River Freeway (I-605) runs in a north-south direction, through the northeast portion of Downey. The Long Beach Freeway (I-710), which runs in a north-south direction, is located approximately one mile west of Downey.

### Glenn Anderson Freeway (I-105)[2]

The Glenn Anderson Freeway (I-105) is located in South Downey and runs in an east-west direction. It is currently under construction and due to be complete in 1993. The Glenn Anderson Freeway will run from Sepulveda Boulevard in the vicinity of the Los Angeles International Airport to the San Gabriel River Freeway (I-605) just east of the City of Downey. Because the freeway will be fully depressed throughout the City of Downey, any noise impacts that may occur will be substantially lessened. In addition, the Green Line, a commuter train, will operate in the I-105 right-of-way.

Within the City of Downey, there will be two freeway access points. Full freeway access will be provided at Lakewood Boulevard and at Bellflower Boulevard. Immediately outside the City limits, an eastbound on-ramp and westbound off-ramp will be provided at Paramount Boulevard and an eastbound off-ramp and westbound on-ramp provided at Garfield Avenue.

Along with the above-mentioned information, CalTrans was contacted to ascertain the relative impacts on the streets of the City of Downey surrounding the proposed Glenn Anderson Freeway for the Year 2010. We were unable to obtain any information regarding the increase or decrease in future projected traffic due to the proposed freeway. Therefore, Staff contracted with a professional Traffic Engineering firm to provide estimates regarding the amount of traffic that would be diverted to the proposed freeway from the adjacent street system. The percentages used to reflect the changes on the street system are shown on Exhibit II-2.

---

[2] Source: Weston Pringle and Associates

# LEGEND

▨ Freeway

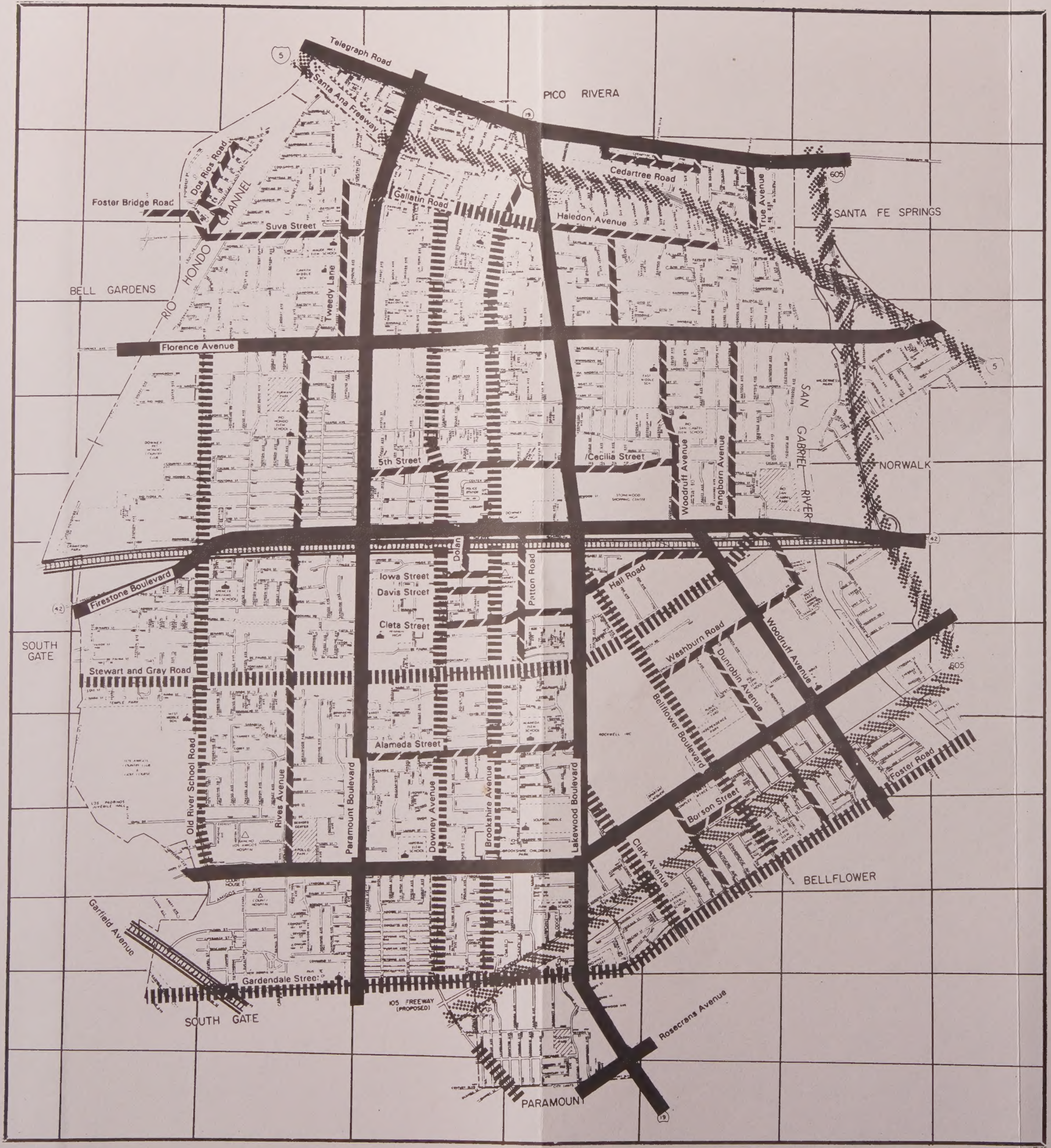
▬ Major Arterial

▥ Secondary Highway

▱ Collector Street

▤ Railroad

SOURCE: City of Downey



Telegraph Road
5
Santa Ana Freeway
19
PICO RIVERA
Cedartree Road
605
SANTA FE SPRINGS
True Avenue
Dos Rios Road
Foster Bridge Road
RIO HONDO CHANNEL
Suva Street
Gallatin Road
Haledon Avenue
BELL GARDENS
Tweedy Lane
Florence Avenue
5
SAN GABRIEL RIVER
5th Street
Cecilia Street
Woodruff Avenue
Pangborn Avenue
NORWALK
42
Firestone Boulevard
42
Dolan
Iowa Street
Davis Street
Patton Road
Hall Road
Cleta Street
SOUTH GATE
Stewart and Gray Road
Washburn Road
Dunrobin Avenue
Woodruff Avenue
605
Bellflower Boulevard
Alameda Street
Foster Road
Old River School Road
Rives Avenue
Paramount Boulevard
Downey Avenue
Brookshire Avenue
Lakewood Boulevard
Borson Street
Clark Avenue
BELLFLOWER
Garfield Avenue
Gardendale Street
105 FREEWAY (PROPOSED)
SOUTH GATE
Rosecrans Avenue
PARAMOUNT
19

# MASTER PLAN OF STREETS & HIGHWAYS

# EXHIBIT II-1

# CIRCULATION CHAPTER

Not to scale.

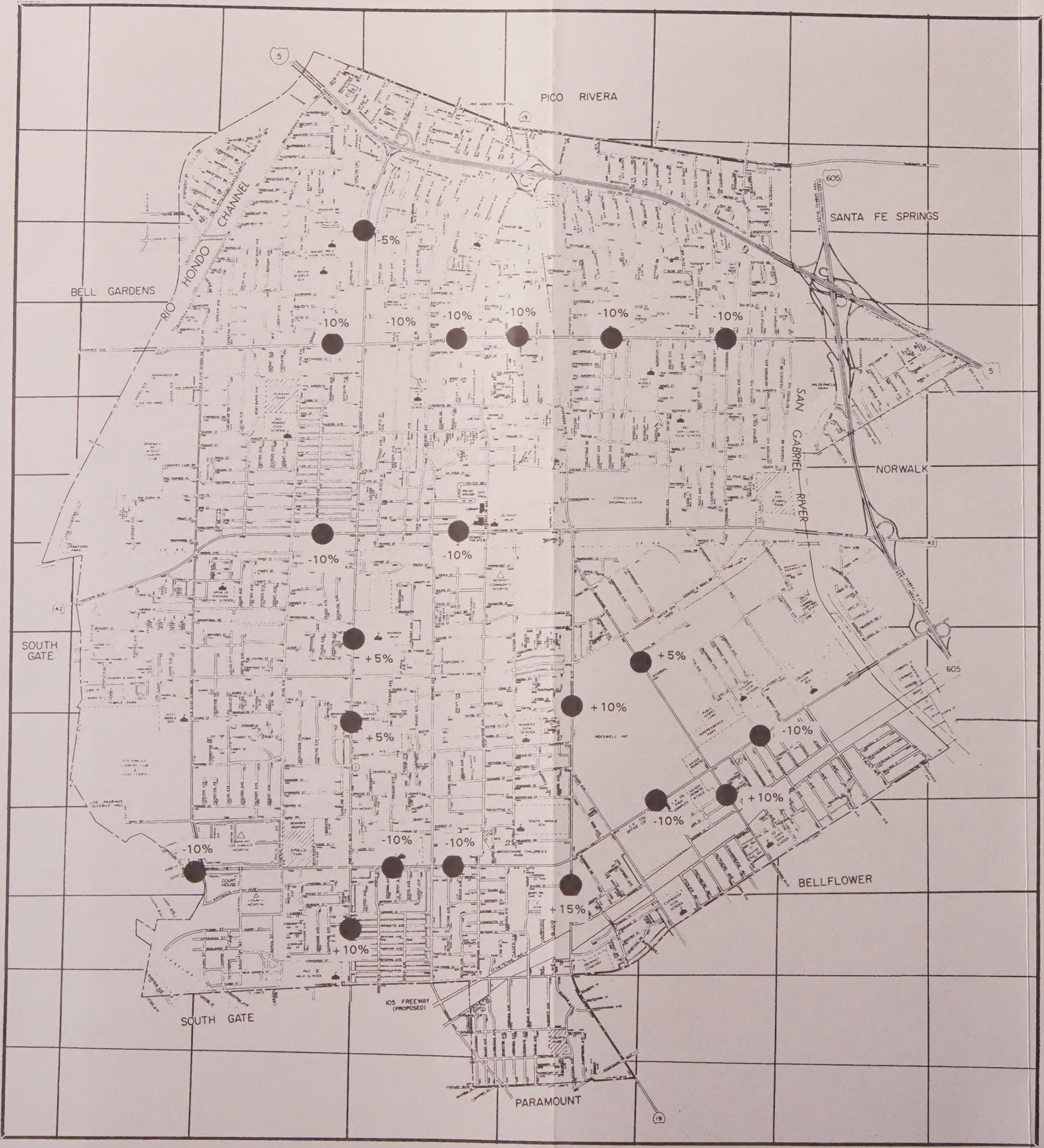
# DOWNEY GENERAL PLAN

Vision 2010

# LEGEND

-10% Percent of change in Average Daily Traffic on the Steet System due to the opening of the Glenn Anderson Freeway (I-105).

Source: Weston Pringle & Associates


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
19
605
42
-5%
-10%
-10%
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-10%
+5%
+5%
+10%
+5%
-10%
+10%
-10%
-10%
-10%
-10%
+15%
+10%

# GLENN ANDERSON FREEWAY STREET IMPACT

## EXHIBIT II-2

## CIRCULATION CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

Table II-2 provides the Glenn Anderson Freeway's affect on the traffic in the area. These volumes are included in the "Other" volumes column of the ICU worksheets. (See pages 25 and 26)

### Major Arterials

Major arterials serve as the principal means for local traffic flow and access to the freeway system. When freeways are not available, major arterials can also serve as long-distance regional traffic corridors. High intensity commercial and industrial land uses are typically located along major arterials.

Two of the major arterials that serve the City of Downey are designated as State Highways. Firestone Boulevard, which is designated as State Route 105, runs in an east-west direction bisecting the city. Lakewood Boulevard (S.R. 19) runs in a north-south direction through the city.

### Secondary Highways

Secondary highways serve primarily local and some through-traffic and also provide access between collector streets and arterials. They are intended to direct traffic from local residential streets to and from traffic generators, such as employment facilities and commercial areas. As with major arterials, secondary highways primarily serve commercial, industrial and some medium density residential land uses.

### Collector Streets

Collector streets distribute traffic from local streets and neighborhoods to arterials and secondary streets. Collectors provide access to properties that abut them, and are designed to discourage through traffic in the neighborhoods they serve. Collectors also serve some multiple family, commercial and industrial uses.

### Local Streets

Local streets are designed to serve low density residential development and carry low volume traffic to and from collector and secondary streets. They are intended for both vehicular and pedestrian access. Local streets account for the majority of all the roadways in the City. Since the primary function of local streets is to provide access to adjacent properties, they should not carry through traffic. This can be accomplished by improving the traffic movements on collector and secondary streets as well as along arterials with improved signalization, less parking on arterial streets, the enforcement of City speed limits, and the development of High Occupancy Vehicle (HOV) lanes within existing freeway rights-of-way.

## II. EXISTING CONDITIONS

In order to quantify the existing traffic conditions of the arterial street system, field studies were conducted by Weston Pringle and Associates and counts were completed by Newport Traffic Studies. AM and PM peak hour traffic counts were conducted at 39 study intersections. Roadway geometric information was also collected during the field studies. Exhibit II-3 shows the results of the existing roadway geometrics within the study area.

Existing (Year 1991) average daily traffic volumes were obtained through the City of Downey Traffic Engineering Department (Exhibit II-4). It should be remembered that daily traffic analyses represent only general indicators of roadway operations. Therefore, daily traffic analyses have been provided for informational purposes. Intersection Capacity Utilization methodology (discussed later in the Chapter) will provide additional information regarding the long range conditions of roadway operations.

Following are the characteristics of several of the major arterials and secondary highways that serve the City of Downey as they presently exist, no expansion is presently proposed.

Firestone Boulevard

- Major Arterial
- Four to six travel lanes depending on parking restrictions
- 40 MPH speed limit east of Lakewood Boulevard and west of Paramount Boulevard
- Curb-to-curb width of 84 feet

Imperial Highway

- Major Arterial
- Six lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 80 feet

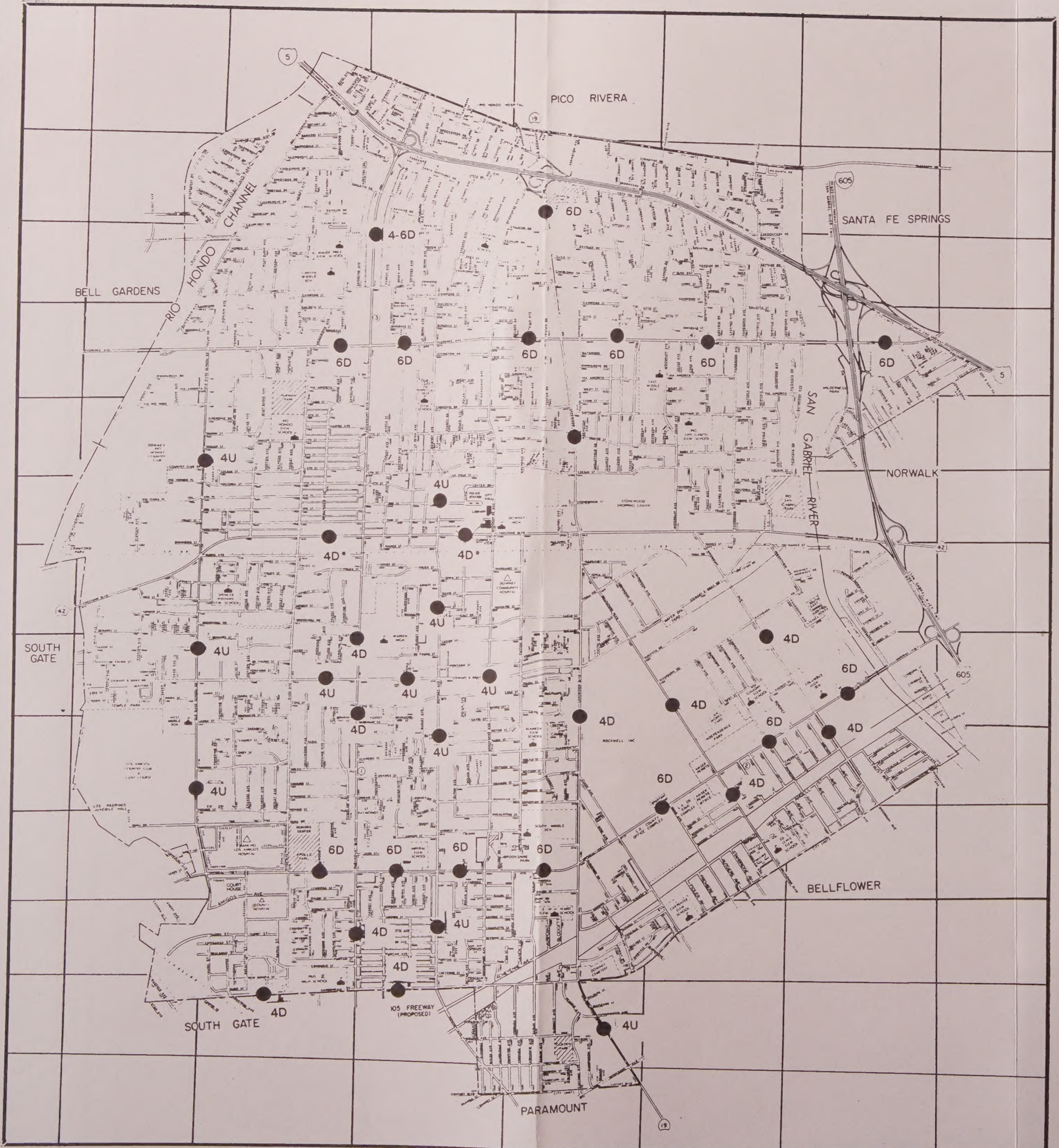
Florence Avenue

- Major Arterial
- Primarily six lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width ranging from 76 and 78 feet

# LEGEND

| | |
|---|---|
| 4 | Number of Lanes |
| U | Undivided |
| D | Divided |
| * | Varies between four and six lanes based upon parking restrictions |

Source: Weston Pringle & Associates



5
PICO RIVERA
19
605
SANTA FE SPRINGS
6D
4-6D
RIO HONDO CHANNEL
BELL GARDENS
6D
6D
6D
6D
6D
6D
SAN GABRIEL RIVER
NORWALK
4U
4U
4D*
4D*
42
SOUTH GATE
4U
4U
4D
4D
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4D
6D
605
6D
6D
6D
6D
6D
4D
4U
4D
BELLFLOWER
4D
105 FREEWAY (PROPOSED)
SOUTH GATE
4U
PARAMOUNT
19

# EXISTING ROADWAY GEOMETRICS

# EXHIBIT II-3

# CIRCULATION CHAPTER

Not to scale.

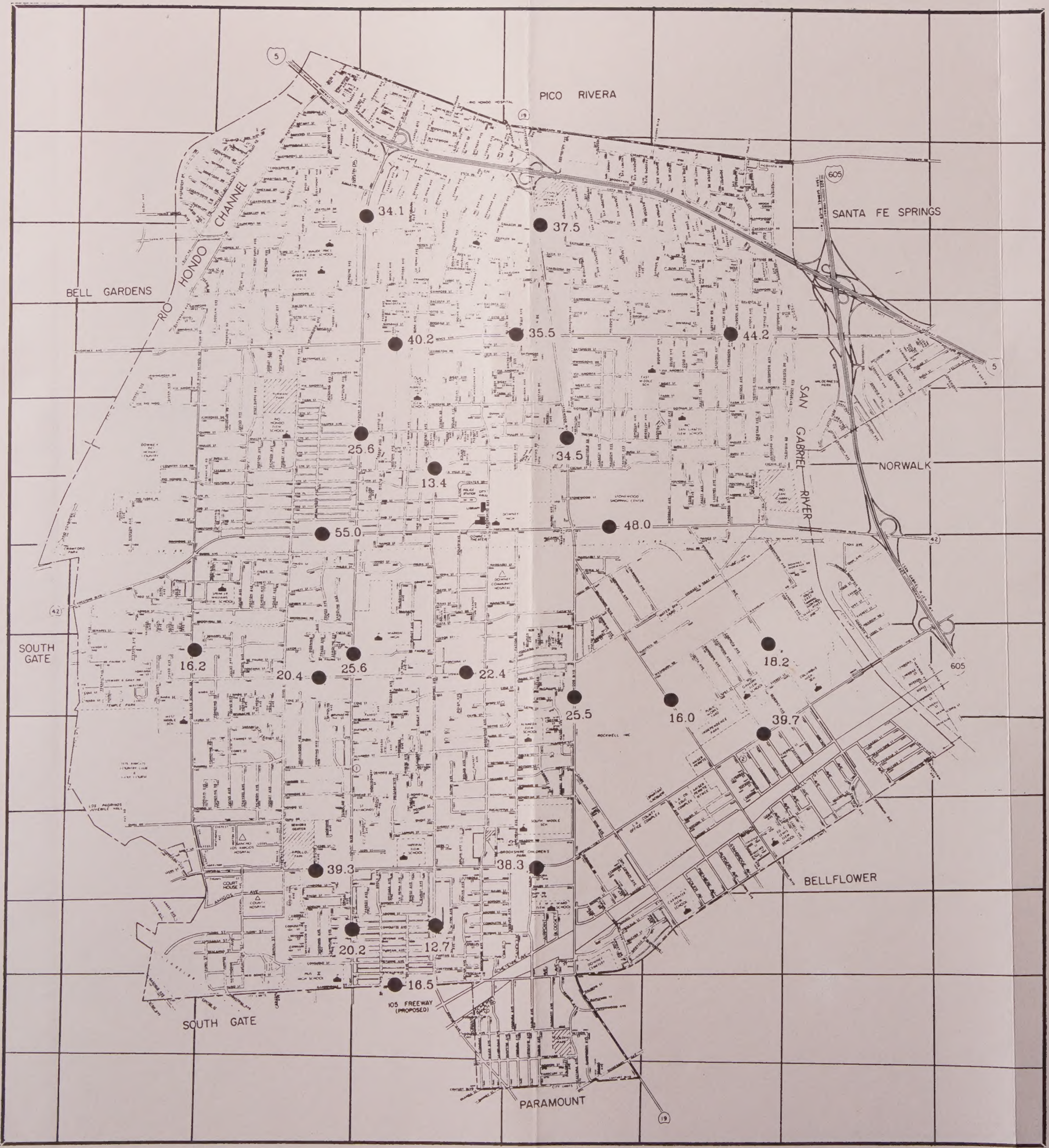
# DOWNEY GENERAL PLAN

Vision 2010

# LEGEND

31.5 Daily Traffic Volumes in Thousands

Source: Weston Pringle & Associates


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
5
605
605
19
19
42
42
34.1
37.5
40.2
35.5
44.2
25.6
34.5
13.4
55.0
48.0
16.2
25.6
20.4
22.4
18.2
25.5
16.0
39.7
39.3
38.3
20.2
12.7
16.5

# EXISTING DAILY TRAFFIC VOLUMES

## EXHIBIT II-4

## CIRCULATION CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

Telegraph Road

- Major Arterial
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 76 feet

Paramount Boulevard

- Major Arterial
- Primarily four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 80 feet

Lakewood Boulevard

- Major Arterial
- Primarily four lane divided roadway (Near the I-5 it widens to six lanes)
- 40 MPH speed limit
- Curb-to-curb width varies from 76 to 80 feet

Stewart and Gray Road

- Secondary Highway
- Four lane undivided roadway
- 35 to 40 MPH speed limit
- Curb-to-curb width varies from 60 to 64 feet

Woodruff Avenue (east)

- Major arterial
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 76 feet

Old River School Road

- Secondary Highway
- Four lane undivided roadway
- 40 MPH speed limit
- Curb-to-curb width of 56 feet

Downey Avenue

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit (25 MPH between Firestone Boulevard and Fifth Street)
- Curb-to-curb width varies from 60 to 64 feet

Bellflower Boulevard

- Secondary Highway
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 64 feet

Clark Avenue

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width varies from 56 to 62 feet

Gallatin Road (between Paramount and Lakewood Boulevards only)

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width of 64 feet

Gardendale Street

- Secondary Highway
- Four lane divided roadway
- 35 MPH speed limit
- Curb-to-curb width of 64 feet

Foster Road

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width of 58 feet

Brookshire Avenue

- Secondary Highway
- Varies from two-lane undivided to four-lane divided roadway
- 35 MPH speed limit (25 MPH speed limit between Cherokee Drive and Florence Avenue)
- Curb-to-curb width varies from 40 to 60 feet

AM and PM peak hour traffic counts were analyzed using the Intersection Capacity Utilization (ICU) methodology for signalized intersections and the 1985 Highway Capacity Manual (85HCM) for the unsignalized intersections. In the ICU methodology, an ICU value is calculated based upon the peak hour intersection volumes and available roadway capacity. These values are then related to Levels of Service (LOS). Levels of Service are qualitative descriptions of intersection operations and range from "A" (the best) to "F" (the worst), similar to report card grades (See Table II-2). "A" means no congestion and "F" means severe congestion. It is generally recognized that LOS A through D represent acceptable operations while LOS E and F indicate an over-capacity situation. However, in a situation where the City involved is older and not experiencing much growth and the intersections are built out, a Level of Service of E could still be considered acceptable.[3] The Technical Appendix contains a more detailed explanation of ICU and its relationship to LOS. The ICU and 85HCM analyses are contained in the Technical Appendix and summarized in Table II-2.

It was determined that this methodology provides an acceptable standard for evaluating existing conditions as well as future operations. Since daily capacities are based on assumptions of "average" traffic distributions through a day, this method accounts for the potential fluctuations from this "average" traffic pattern.

- **Growth**

Downey and other Southeast area cities are in a unique position when traffic growth rate factors are considered. Downey and the surrounding areas are older communities where development has been in place for many years; substantial growth within the area is not taking place. Any growth that may occur will be off set by the requirements of the Congestion Management Plan and AQMD (Air Quality) requirements for travel reduction programs. An actual growth rate was not used, but the projected population growth rate of 13 percent was accounted for in the "Other" category in Table II-2. The population and traffic growth were considered to be off set by various traffic reduction programs that were mentioned previously.[4]

The construction of the Glenn Anderson Freeway has placed Downey in a unique position. Because of the freeway's construction, local traffic has been diverted throughout the City. Although the construction alters today's traffic patterns, a new traffic study will be completed within five years of completion of the Freeway so that a truer picture of traffic patterns will be available. Exhibit II-5 identifies Year 2010 daily volumes for the City of Downey.

---

[3] Weston Pringle and Associates

[4] Weston Pringle and Associates

# TABLE II-2

# ICU SUMMARY

| INTERSECTION | EXISTING AM | EXISTING PM | EXISTING + OTHER AM | EXISTING + OTHER PM | EXISTING + OTHER + PROJECT AM | EXISTING + OTHER + PROJECT PM |
|---|---|---|---|---|---|---|
| Lakewood/Gallatin | 1.00/E[5] | 0.91/E | 0.94/E | 0.89/D | 1.01/F | 1.04/F |
| Florence/Paramount | 0.91/E | 0.93/E | 0.87/D | 0.98/E | 0.99/E | 0.91/E |
| Florence/Lakewood | 0.83/D | 0.89/D | 0.94/E | 1.05/F | 0.98/E | 1.15/F |
| Florence/Woodruff | 0.81/D | 0.73/C | 0.78/C | 0.76/C | 0.78/C | 0.73/C |
| I-605 SB Ramps/Florence | 0.79/C | 0.89/D | 0.77/C | 0.92/E | 0.77/C | 0.90/D |
| Studebaker/Florence | 0.60/A | 0.70/B | 0.58/A | 0.71/C | 0.58/A | 0.68/B |
| Firestone/Old River School | 0.78/C | 0.77/C | 0.75/C | 0.82/D | 0.75/C | 0.93/E |
| Firestone/Paramount | 0.74/C | 0.79/C | 0.72/C | 0.85/D | 0.94/E | 1.04/F |
| Firestone/Downey | 0.59/A | 0.68/B | 0.54/A | 0.70/B | 0.62/B | 0.70/B |
| Paramount/ Stewart & Gray | 0.74/C | 0.85/D | 0.76/C | 0.91/E | 1.00/E | 1.04/F |
| Downey/Stewart & Gray | 0.59/A | 0.76/C | 0.62/B | 0.86/D | 0.70/B | 0.90/D |
| Imperial/Old River | 0.56/A | 0.86/D | 0.52/A | 0.90/D | 0.57/A | 0.95/E |
| Imperial/Paramount | 0.58/A | 0.64/B | 0.54/A | 0.65/B | 0.78/C | 0.73/C |
| Downey/Imperial | 0.65/B | 0.72/C | 0.67/B | 0.70/B | 0.73/C | 0.65/B |
| Imperial/Lakewood | 0.57/A | 0.68/B | 0.55/A | 0.69/B | 0.51/A | 0.76/C |
| Imperial/Bellflower | 0.67/B | 0.67/B | 0.63/B | 0.62/B | 0.58/A | 0.77/C |
| Imperial/Woodruff | 0.77/C | 0.91/E | 0.73/C | 0.85/D | 0.68/B | 0.93/E |
| Paramount/Gardendale | 0.59/A | 0.89/D | 0.62/B | 0.93/E | 0.68/B | 0.90/D |
| Firestone/Brookshire | 0.67/B | 0.83/D | 0.83/D | 1.01/F | 0.81/D | 1.02/F |
| Firestone/Lakewood | 0.98/E | 1.09/F | 1.04/F | 1.23/F | 0.93/E | 1.23/F |
| Firestone/Stonewood | 0.46/A | 0.52/A | 0.51/A | 0.57/A | 0.51/A | 0.58/A |
| Firestone/Woodruff (West) | 0.50/A | 0.57/A | 0.57/A | 0.67/B | 0.50/A | 0.67/B |
| Firestone/Woodruff (East) | 0.58/A | 0.85/D | 0.63/D | 0.93/E | 0.61/B | 0.95/E |

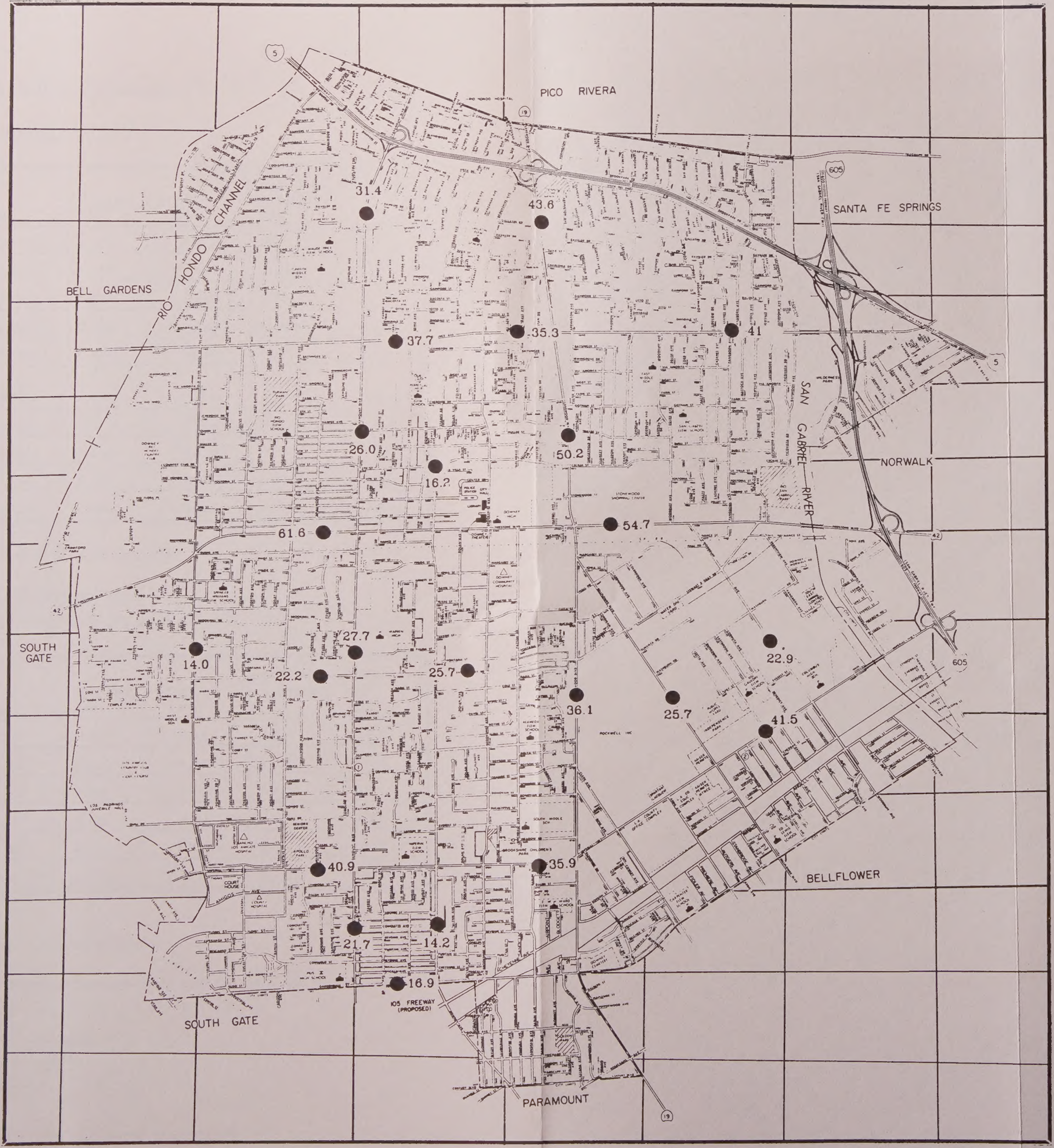
---

[5] 1.00 = Intersection Capacity Utilization; E = Level of Service

# LEGEND

| | |
|---|---|
| 31.5 | Daily Traffic Volumes in Thousands |

Source: Weston Pringle & Associates


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
PARAMOUNT
105 FREEWAY (PROPOSED)
5
19
605
42
31.4
43.6
37.7
35.3
41
26.0
50.2
16.2
61.6
54.7
27.7
14.0
22.2
25.7
36.1
25.7
22.9
41.5
40.9
35.9
21.7
14.2
16.9

# PROJECTED DAILY TRAFFIC VOLUMES YEAR 2010

# EXHIBIT II-5

# CIRCULATION CHAPTER

Not to scale.

# DOWNEY GENERAL PLAN

Vision 2010

## TABLE II-2 (Continued)

## ICU SUMMARY

| INTERSECTION | EXISTING | | EXISTING + OTHER | | EXISTING + OTHER +PROJECT | |
|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM |
| Firestone/Stewart & Gray | 0.54/A[6] | 0.62/B | 0.58/A | 0.71/C | 0.54/A | 0.73/C |
| Firestone/I-605 NB Ramps | 1.02/F | 1.02/F | 1.12/F | 1.14/F | 1.10/F | 1.19/F |
| Firestone/I-605 SB Ramps | 0.47/A | 0.50/A | 0.55/A | 0.62/B | 0.54/A | 0.64/B |
| Lakewood/Cherokee | 0.44/A | 0.59/A | 0.48/A | 0.62/B | 0.46/A | 0.63/B |
| Lakewood/5th St.-Cecilia | 0.60/A | 0.75/C | 0.66/B | 0.83/D | 0.64/B | 0.83/D |
| Lakewood/3rd St.-Stonewood | 0.51/A | 0.55/A | 0.56/A | 0.63/B | 0.49/A | 0.62/B |
| Lakewood/Bellflower | 0.53/A | 0.66/B | 0.56/A | 0.68/B | 0.55/A | 0.70/B |
| Lakewood/Cleta | 0.38/A | 0.50/A | 0.44/A | 0.57/A | 0.43/A | 0.58/A |
| Lakewood/Stewart & Gray | 0.66/B | 0.82/D | 0.69/B | 0.90/D | 0.68/B | 0.90/D |
| Woodruff/Stewart & Gray | 0.45/A | 0.62/B | 0.46/A | 0.64/B | 0.45/A | 0.63/D |

## TABLE II-2 (Continued)

## ICU SUMMARY

### Unsignalized Intersections

| INTERSECTION (Unsignalized)[7] | EXISTING | | EXISTING + OTHER | | EXISTING + OTHER + PROJECT | |
|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM |
| Firestone/Patton | A,E,F | B,E,F | A,E,F | B,E,F | A,E,F | C,E,F |
| Firestone/Marbel | A,D,E | A,B,E | B,D,E | A,C,E | B,D,E | A,C,E |
| Firestone/Nash | A,B,E | C,D,E | A,C,E | C,D,E | A,B,E | D,E |
| Lakewood/Hall | A,E | A,B,E | A,B,E | A,C,E | A,B,E | A,C,E |
| Lakewood/Buckles | A,D,E | A,B,E | A,E | A,C,E | A,E | A,C,E |
| Cecilia/Woodruff | A,B,C,E | A,B,C,D | A,B,C,E | A,C,D | A,B,C,D | A,C,D,E |

---

[6] 0.54 = Intersection Capacity Utilization; A = Level of Service

[7] Depicts range of Level of Service for intersection movements on both the major and minor streets.

- **Congestion Management Program**

The Congestion Management Program (CMP) is a new program enacted by the State legislature, whose requirements became effective with voter approval of Proposition 111 in June, 1990. Proposition 111 provided for a nine cent increase in the State gas tax over a five year period.

In passing the Congestion Management Program, the legislature noted increasing concern that congestion in urban areas was impacting the economic vitality of the State and diminishing the quality of life in many communities.[8] As a new approach to address congestion concerns, the CMP was created for the following purposes:

1. To make the most effective use of all transportation modes (highways, streets and roads, rail, bus, demand management, bicycle and pedestrian travel) in managing congestion through the CMP process.

2. To require local jurisdictions to examine the impacts of land use decisions on the regional transportation system and be responsible for mitigating these impacts.

3. To develop transportation solutions that also work toward improving air quality.

The Los Angeles County Transportation Commission (LACTC) has been designated the Congestion Management Agency for Los Angeles County, and as such must prepare the CMP for this region. Two roads in Downey are currently designated as part of the CMP network: Firestone Boulevard and Lakewood Boulevard. The final draft of the CMP indicates that Firestone Boulevard will be dropped from the Program once the Glenn Anderson Freeway is opened in 1993. According to the CMP requirements there are also three intersections located in Downey that will have to be monitored: Firestone and Lakewood Boulevards, Old River School Road and Firestone Boulevard and Telegraph Road and Lakewood Boulevard.

Localities also have responsibilities for implementing the program. In accordance with statute, these responsibilities include, but are not limited to:

1. Conforming with level of service standards.

2. Adoption and implementation of a trip reduction and travel demand ordinance.

3. Adoption and implementation of a program to analyze the impacts of land use decisions on the regional transportation system.

---

[8] Draft Congestion Management Plan

4. Developing and implementing annual deficiency plans for portions of the CMP system which do not meet the established level of service standards within their jurisdictions.

The CMP requires that local cities set level of service (LOS) standards that conform with the standards set by the CMP. The CMP requires any roadways within the CMP network have a level of service standard set at no less than LOS "E", except where the roadway is already operating at LOS "F". Thus, because the intersection of Firestone and Lakewood Boulevard is currently operating at LOS "F", its LOS standard will be set at LOS "F".

In addition, the Congestion Management Program calls for the implementation of Transportation Demand Management (TDM) and Transportation System Management (TSM) programs for the City. Transportation Demand Management involves strategies encouraging individuals to either change their mode of travel from a single-occupancy vehicle, eliminate the trip altogether, or commute at other than peak periods. Transportation System Management involves strategies designed to improve traffic flow through modifications in the operation of existing transportation facilities. The two approaches are complementary strategies that attempt to achieve more efficient transportation system utilization by focusing on both travel demand (TDM) and changes in transportation supply (TSM).

- **Railways and Airports**

There are two railroad lines that pass through Downey, operated by the Southern Pacific and the Union Pacific Railroads. The City is bisected by the Southern Pacific Rail Line which runs parallel to Firestone Boulevard. This is a main line route to Pico Rivera, Whittier and the City of Industry. The Union Pacific Rail Line crosses the city limits on the western boundary, south of Imperial Highway near the Rancho Business Park.

Approximately four to eight trains use these lines each day. Because the rail lines are private property, there is no limit on the number of trains that can pass through the city. Activity on the rail lines varies due to the type of freight, the season of the year and the time of day; making it difficult to predict an average number of trains that pass through the city.[9]

In addition to the railroad lines, there are two helicopter landing sites within the City of Downey. Rockwell International Corporation operates a helicopter pad, but it is not used for the general public's transportation needs. The Hospital uses its helipad for emergency air service for life-threatening emergencies only.

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[9] Tom Barcelo of the Railroad Safety Section of the Public Utilities Commission.

Airplane traffic over Downey is significant. Downey lies along the flight path to Los Angeles International Airport and Long Beach Airport. Flight paths are regulated by the Federal Aviation Administration (FAA). Flight patterns change under various conditions: wind, weather, time of day, etc.; all of which impact the City. Noise and safety problems are the main concerns associated with air traffic over the City and are discussed in the Noise and Safety Chapters of the General Plan.

- **Truck Routes**

The City of Downey has a designated truck route system which utilizes many of its major trafficways (See Exhibit II-6). Designation of truck routes provides the City with a system which offers truck access to commercial and industrial areas, while confining truck traffic to major streets. A further benefit of a truck route system is the elimination of excessive noise, dust and traffic hazards associated with truck movement through residential areas. By discouraging land uses that promote the use of heavy trucks and by encouraging truck traffic to use existing truck routes, the City should be able to better protect its residential areas.

- **Parking**

The City presently has adequate automobile parking facilities for most all commercial and public areas. However, within the historic downtown area there are some inadequacies in the design and amount of parking. The Downtown Blue Ribbon Committee has studied this area and has recommended that the City develop a downtown specific plan. This plan would include recommendations for improving the design and amount of parking available in the area. One solution for parking problems is shared parking. A land use that is typically used during the day time, such as a strip center, would share its parking with a land use that is primarily used during the evening hours, such as a movie theater.

The City of Downey has a ridesharing plan for City employees in order to comply with the Air Quality Management District (AQMD) regulations. The City of Downey employees that do use the commuting program, which includes ridesharing, bicycling, walking and public transit, receive an incentive. The incentives are based upon the numbers of days a week the program is used. The City of Downey does not have a rideshare policy which would apply to businesses within the City although some businesses may have initiated some type of rideshare program.[10]

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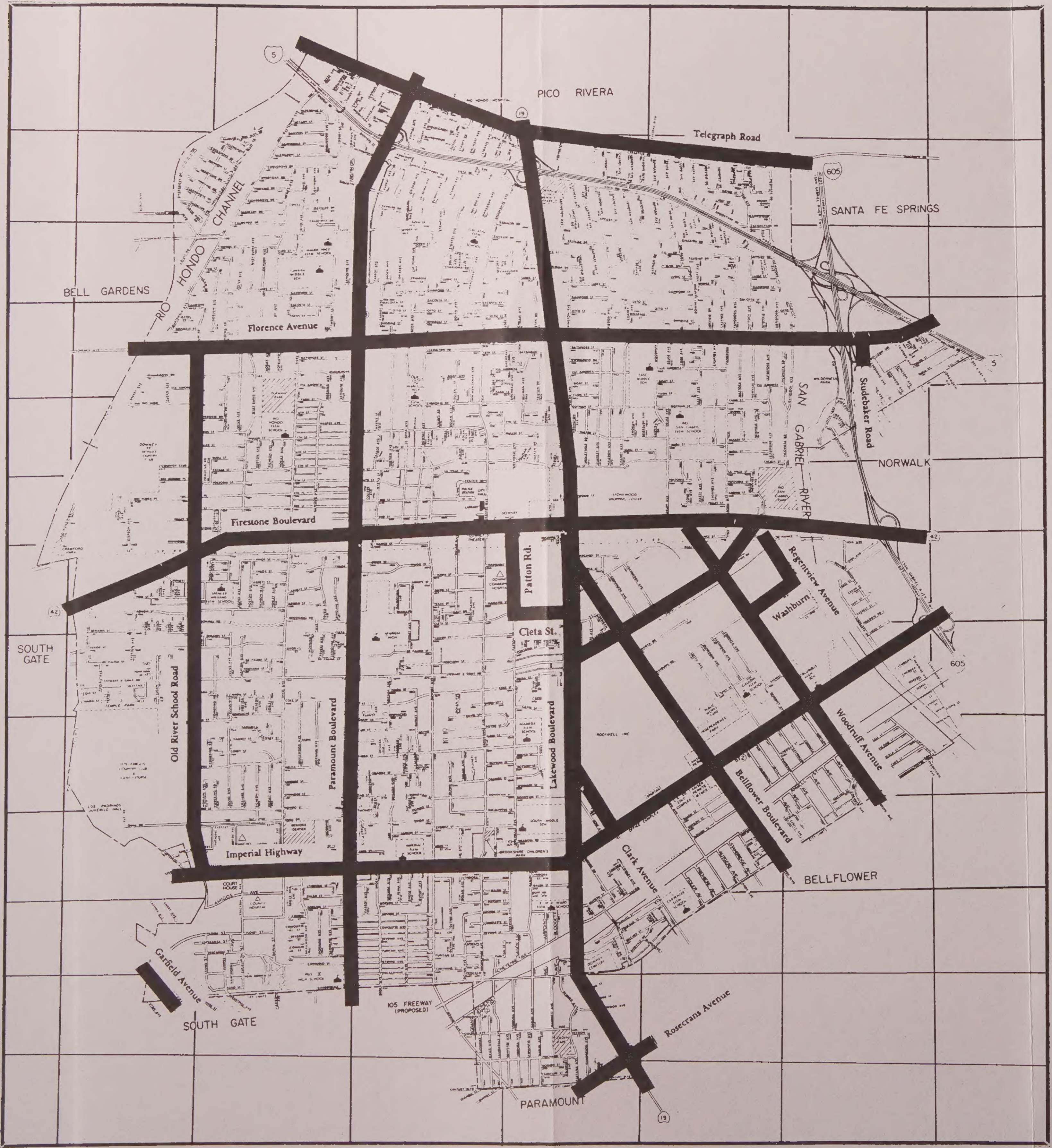
[10] Weston Pringle and Associates

# LEGEND

▬ Existing Truck Routes


5
PICO RIVERA
19
Telegraph Road
605
SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
Florence Avenue
5
SAN GABRIEL RIVER
Studebaker Road
NORWALK
Firestone Boulevard
42
42
Patton Rd.
Regentview Avenue
Washburn
Cleta St.
605
SOUTH GATE
Old River School Road
Paramount Boulevard
Lakewood Boulevard
Woodruff Avenue
Bellflower Boulevard
Clark Avenue
Imperial Highway
BELLFLOWER
Garfield Avenue
SOUTH GATE
105 FREEWAY (PROPOSED)
Rosecrans Avenue
PARAMOUNT
19

SOURCE: City of Downey

# EXISTING TRUCK ROUTES

## EXHIBIT II-6

## CIRCULATION CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

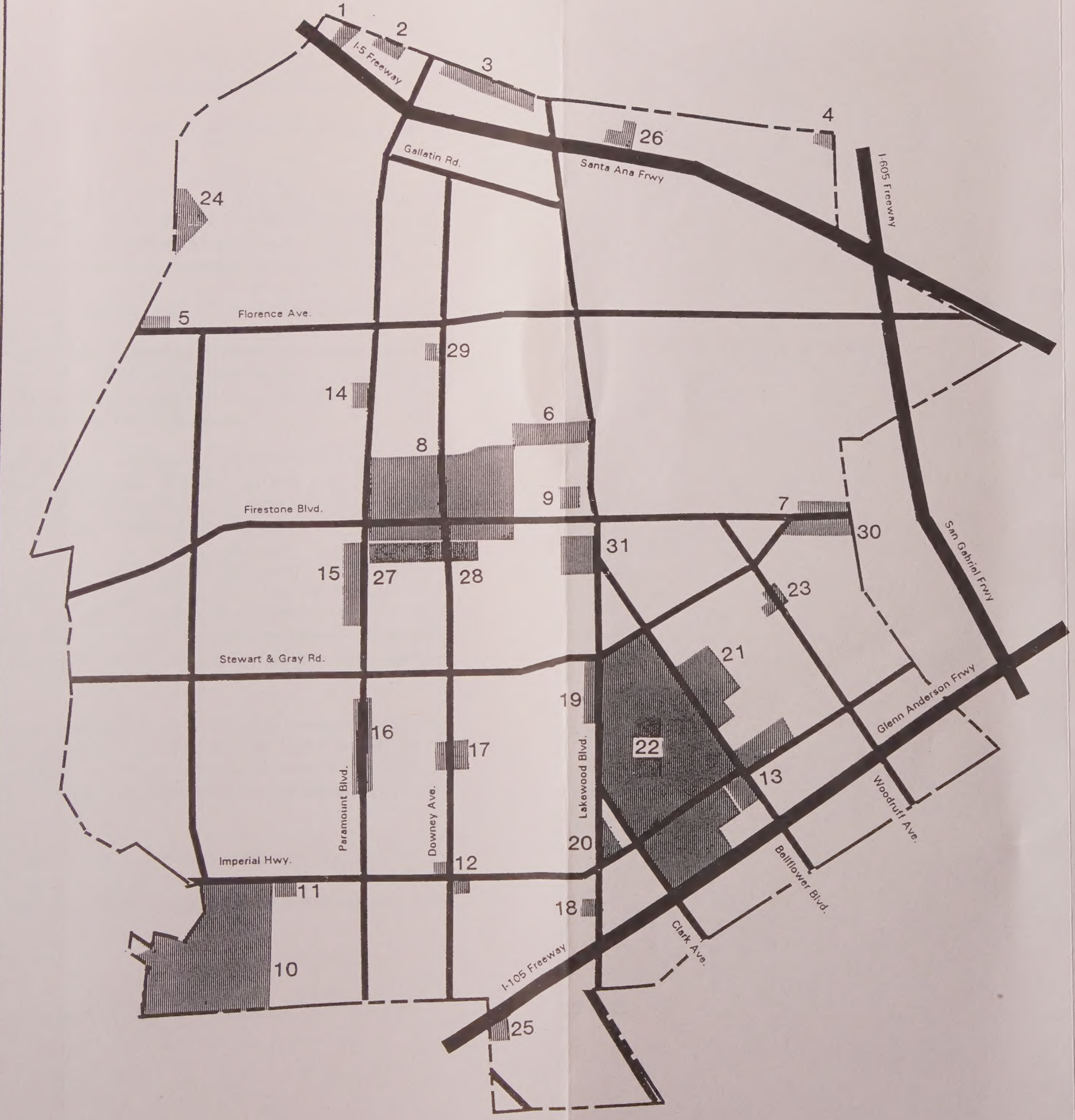
Vision 2010

## LEGEND

1. GEN COM TO PUBLIC
2. MED RES TO OFFICE
3. COMM TO OFFICE
4. PLANNED DEVELOPMENT TO LOW RES
5. COMM TO LOW/MED RES
6. MED RES TO LOW RES
7. MANUF., MED RES., COMM TO COMM
8. VARIOUS TO MIXED USE
9. COMM TO LOW RES
10. PUBLIC TO COMM/MANUF/SP
11. MED RES TO COMM
12. MED RES TO COMM
13. MANUF TO COMM
14. MED RES TO LOW RES
15. COMM TO OFFICE
16. COMM TO OFFICE
17. COMM TO MED RES
18. MED RES TO LOW RES
19. MED RES TO OFFICE
20. MED RES TO COMM
21. MANUF TO COMM/MANUF
22. MANUF TO MIXED USE
23. MANUF TO COMM
24. COMM/LOW-MED/MED RES TO LOW RES
25. MANUF TO LOW RES
26. SCHOOL TO LOW RES
27. LIGHT MANUF TO COMM/MANUF
28. LIGHT MANUF TO OFFICE
29. MED RES TO LOW RES
30. MANUF TO COMM/MANUF
31. MANUF TO COMM/MANUF

| | |
|---|---|
| LOW RES: | LOW DENSITY RESIDENTIAL |
| MED RES: | MEDIUM DENSITY RESIDENTIAL |
| COMM: | COMMERCIAL |
| MANUF: | MANUFACTURING |

SOURCE: City of Downey


1
2
I-5 Freeway
3
4
26
Gallatin Rd.
Santa Ana Frwy
I-605 Freeway
24
5
Florence Ave.
29
14
6
8
9
Firestone Blvd.
7
30
31
15
27
28
23
San Gabriel Frwy
21
Stewart & Gray Rd.
19
16
17
22
Glenn Anderson Frwy
13
Paramount Blvd.
Downey Ave.
Lakewood Blvd.
Woodruff Ave.
20
Imperial Hwy.
12
11
18
Bellflower Blvd.
10
Clark Ave.
I-105 Freeway
25

# CHANGES TO THE DOWNEY LAND-USE DIAGRAM 2010

## EXHIBIT II-7

## CIRCULATION CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

## III. GENERAL PLAN UPDATE [11]

Future travel demands are directly related to changes in future land use. When changes are made to the type or intensity of a land use, there will be a change in travel demands. In addition, any change to the circulation system will impact land use. This relationship between circulation and land use is the most important concept in the Circulation Chapter.

In order to analyze the traffic impacts of the proposed General Plan Update, it was necessary to determine the trip generation rates of the proposed land uses. Trip generation rates applicable to the proposed and existing land uses were referenced from *Trip Generation*[12] and are listed in Table II-3. The existing land uses were compared to the proposed land uses. The incremental difference between these two plans represents the development which will generate the future traffic impacts.

The City was divided into 26 traffic study areas. Exhibit II-7 illustrates the traffic study areas. The land use changes for each zone were provided by the City of Downey Planning Department. Given the trip rates listed in Table II-3, the total daily and peak hour trip end generation for each area was calculated and are listed in Table II-4.

During the public hearing process before the Planning Commission, three additional changes were made to the General Plan Land Use Diagram. The three areas were included in the growth for the entire City, and having discussed the matter with the City's Traffic Engineer, find their cumulative impacts were considered negligible. Correspondingly individual discussion was felt to be unnecessary for separate consideration, as shown in Table II-4.

When analyzing a large area such as in a General Plan, some adjustments in the trip generation should be made. These adjustments can account for: trips which remain internal to the traffic study zone, the double counting of trips which are made from one area to another, and the passerby effect where some of the new trip ends originate from the existing traffic stream.

Internal trips are where the start and end of a trip are both within an area and do not impact the surrounding areas. It is true that some of these trips may utilize arterials within the study areas, but in these cases the double counting effect still applies.

---

[11] Weston Pringle and Associates

[12] *Trip Generation*, 5th Edition; Institute of Transportation Engineers (ITE), 1991.

The double counting effect exists because of the way trip generation analyses are calculated. Trips generated by any particular project are expressed in terms of "trip ends". Therefore, if someone drives from home to a shopping center, two trip ends are generated (one leaving the residential and one arriving at the shopping center), but only one trip was made. Therefore, in large projects where many of the trips are made between land uses within the same overall project area (the City of Downey) an adjustment to the trip end totals must be made.

The third factor is a reduction in traffic due to the passerby effect. This effect is most common for retail land uses and occurs when existing traffic (i.e. a person going from work to home) stops at a new shopping center on the way home. This stop would be counted in the trip generation as two trip ends (one arriving and one leaving), but in reality there are no increases in traffic since the driver was already on the roadway, going home from work.

A 30 percent reduction was taken due to double counting of trips and trips remaining internal. This reduction was applied to all proposed land uses except retail/commercial and residential. For the retail/commercial land uses a range of 20-30 percent passby reduction was taken based upon the applicable square footage.

Trip distribution patterns were developed for each of the traffic study areas based on location of trip attractors, the surrounding street system, proximity of freeway access and type of land use. The adjusted trip ends for each area were assigned to the surrounding street system. These adjusted trip ends were all assumed to have origins or destinations outside of the City of Downey limits.

The adjusted trip ends were applied to the study intersections and the ICU analyses was updated. Nine of the 39 study intersections are projected to operate at unacceptable Levels of Service. These nine intersections are discussed in detail in the following section.

- **Study Intersection Evaluation**[13]

The City of Downey is an older, established City with many factors (locations of buildings, availability of off-street parking, etc.) which reduce the potential for modifying the existing street system and study intersections. The following recommendations have taken into consideration the limitation of the study intersections.

---

[13] Weston Pringle and Associates

- Gallatin Road and Lakewood Boulevard -- This intersection has existing deficiencies which will remain at similar levels in the future. Review of the ICU analysis indicated the need for additional through lanes on Lakewood and dual eastbound left turn lanes. These improvements are recommended to mitigate existing as well as future traffic deficiencies.

- Paramount Boulevard and Florence Avenue -- The current Level of Service E condition at this intersection is projected to remain at Level of Service E. This intersection is basically improved to its maximum configuration. The addition of dual left turn lanes on Florence is recommended as a long-term goal. Since no change in Level of Service is projected, buildout would not have a significant impact upon this intersection.

- Florence Avenue and Lakewood Boulevard -- This intersection is projected to deteriorate from Level of Service D to E and F with buildout conditions. Review of the ICU analysis indicates a need for dual left turn lanes on all approaches. These improvements would require additional right-of-way and cannot easily be obtained. As a long-term goal, widening to allow additional left turn lanes is recommended.

- Paramount Boulevard and Firestone Boulevard -- At present, this intersection is operating at Level of Service C and is projected to operate at Level of Service E and F with the General Plan buildout. Increases in north-south traffic are the principal contributors to the future conditions. Traffic demands indicate the need for dual left turn lanes on Paramount and separate right turn lanes on Firestone.

- Paramount Boulevard and Stewart & Gray Road -- This intersection is projected to operate at Level of Service E and F at buildout of the General Plan. Review of the ICU analysis indicates that an additional northbound and southbound lane on Paramount would be required to mitigate these impacts.

- Imperial Highway and Old River School Road -- With General Plan buildout, this intersection is projected to operate at Level of Service E during the PM peak hour. There is a need for a dual eastbound left turn lane with existing traffic, which would also mitigate long-term conditions.

- Firestone Boulevard and Brookshire Avenue -- This intersection is projected to deteriorate to Level of Service D and F with "Other" project traffic and General Plan buildout. As a result of "Other" project traffic, intersection improvements are required. Since the intersection is currently "fully" improved, a long-term goal of adding lanes to the four approaches is recommended.

- Firestone Boulevard and Lakewood Boulevard[14] -- This intersection is currently operating at unacceptable conditions during both the AM and PM peak hours. Some improvement would be expected with the completion of the I-105 Freeway; however, on a long-term basis, intersection improvements are recommended.

- Firestone and I-605 Northbound Ramps -- This intersection is currently at LOS F and will continue at this condition with "Other" project traffic. The need for improvement is significant and not related to the General Plan buildout. This improvement should be a part of the current interchange reconstruction.

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[14] A traffic study completed in the Summer of 1991 recommended that the following curb-to-curb and total right-of-way widths (with no median) for each leg of the Lakewood/Firestone intersection be established:

| | exist. r-o-w | future r-o-w |
|---|---|---|
| Lakewood, North Leg: | 102′ | 114′ |
| Lakewood, South Leg: | 102′ | 114′ |
| Firestone, East Leg: | 115′ | 116′ |
| Firestone, West Leg: | 100′ | 102′ |

# TABLE II-3
# TRIP GENERATION RATES

| | | TRIP ENDS PER DESCRIPTOR[15] | | | | |
|---|---|---|---|---|---|---|
| | | | AM PEAK HOUR | | PM PEAK HOUR | |
| **Land Use** | **Descriptor** | **Daily** | **In** | **Out** | **In** | **Out** |
| Medical/ Dental Office | 1,000 SF | 34.17 | 2.07 | 0.62 | 1.22 | 2.86 |
| Hospital | 1,000 SF | 16.78 | 0.82 | 0.34 | 0.32 | 0.74 |
| Business Park | 1,000 SF | 14.37 | 1.38 | 0.24 | 0.33 | 1.15 |
| Low Residential | Dwelling Unit | 10.0 | 0.2 | 0.6 | 0.7 | 0.3 |
| Low-Med. Residential | Dwelling Unit | 10.0 | 0.2 | 0.6 | 0.7 | 0.3 |
| Medium Residential | Dwelling Unit | 8.0 | 0.1 | 0.5 | 0.6 | 0.2 |
| P.U.D. | Dwelling Unit | 7.44 | 0.11 | 0.4 | 0.41 | 0.21 |
| Manufacturing | 1,000 SF | 3.85 | 0.73 | 0.06 | 0.4 | 0.35 |

**EQUATIONS:**

General Office Building (Per 1,000 SF):

- Daily $\mathrm{Ln}(T) = 0.756\,\mathrm{Ln}(X) + 3.765$
- AM Peak Hour $\mathrm{Ln}(T) = 0.777\,\mathrm{Ln}(X) + 1.674$ (89% In, 11% Out)
- PM Peak Hour $\mathrm{Ln}(T) = 0.737\,\mathrm{Ln}(X) + 1.831$ (17% In, 83% Out)

Retail (Per 1,000 SF):

- Daily $<$570,000 SF $\mathrm{Ln}(T) = 0.625\,\mathrm{Ln}(X) + 5.985$
  $>$570,000 SF $\mathrm{Ln}(T) = 0.756\,\mathrm{Ln}(X) + 5.154$
- AM Peak Hour $\mathrm{Ln}(T) = 0.589\,\mathrm{Ln}(X) + 2.378$ (63% In, 37% Out)

- PM Peak Hour $<$600,000 SF $\mathrm{Ln}(T) = 0.637\,\mathrm{Ln}(X) + 3.553$ (50% In, 50% Out)
  $>$600,000 SF $\mathrm{Ln}(T) = 0.725\,\mathrm{Ln}(X) + 2.987$ (50% In, 50% Out)

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[15] *Trip Generation*, 5th Edition; Institute of Transportation Engineers (ITE); 1991.

# TABLE II-4

## TRIP GENERATION COMPARISON

| | | | TRIP ENDS | | | | |
|---|---|---|---|---|---|---|---|
| | | | | AM PEAK HOUR | | PM PEAK HOUR | |
| **AREA[16]** | **(FROM--*TO*) LAND USE** | **SIZE** | **DAILY** | **IN** | **OUT** | **IN** | **OUT** |
| 2 | Medium Residential | 51 DU | 400 | 5 | 25 | 30 | 10 |
| | • *Office Building[17]* | *37,462 SF* | *450* | *55* | *10* | *10* | *50* |
| | • *Medical Office[17]* | *93,654 SF* | *2,240* | *130* | *40* | *80* | *190* |
| | **DIFFERENCE** | | **+2,290** | **+180** | **+25** | **+60** | **+230** |
| 3 | Commercial | 211,919 SF | 11,300 | 160 | 95 | 530 | 530 |
| | • *Office Building[17]* | *169,535 SF* | *1,470* | *180* | *20* | *30* | *160* |
| | • *Medical Office[17]* | *423,839 SF* | *10,150* | *615* | *185* | *365* | *850* |
| | **DIFFERENCE** | | **+320** | **+635** | **+110** | **-135** | **+480** |
| 4 | P.U.D. | 6 DU | 45 | NOM | 5 | 5 | NOM |
| | • *Low Residential* | *8 DU* | *80* | *NOM* | *5* | *5* | *NOM* |
| | **DIFFERENCE** | | **+35** | **0** | **0** | **0** | **0** |
| 5 | Commercial | 109,336 SF | 7,500 | 110 | 65 | 350 | 350 |
| | • *Low/Med Res.* | *85 DU* | *850* | *20* | *50* | *60* | *25* |
| | **DIFFERENCE** | | **-6,650** | **-90** | **-15** | **-290** | **-325** |
| 6 | Medium Residential | 86 DU | 700 | 10 | 45 | 50 | 20 |
| | • *Low Residential* | *28 DU* | *300* | *5* | *15* | *20* | *10* |
| | **DIFFERENCE** | | **-400** | **-5** | **-30** | **-30** | **-10** |
| 7 | Manufacturing | 550,598 SF | 2,100 | 400 | 35 | 220 | 190 |
| | Medium Residential | 95 DU | 760 | 10 | 50 | 60 | 20 |
| | • *Retail[18]* | *174,065 SF* | *7,500* | *105* | *65* | *350* | *350* |
| | • *Office Building[17]* | *696,263 SF* | *4,270* | *540* | *65* | *90* | *450* |
| | **DIFFERENCE** | | **+8,910** | **+235** | **+45** | **+160** | **+590** |

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[16] Because no changes were made to the vehicular trips for Area 1, it has not been included in this Table.

[17] A 30% reduction was taken due to double counting of trips and trips remaining internal.

[18] A 20 - 30% passby reduction was taken.

## TABLE II-4 (Continued)

## TRIP GENERATION COMPARISON

| | | | TRIP ENDS | | | | |
|---|---|---|---|---|---|---|---|
| | | | | AM PEAK HOUR | | PM PEAK HOUR | |
| **AREA** | (FROM-*TO*)<br>**LAND USE** | **SIZE** | **DAILY** | **IN** | **OUT** | **IN** | **OUT** |
| 8 | Commercial | 2,178,000 SF | 57,800 | 630 | 370 | 2,610 | 2,610 |
| | Medium Residential | 576 DU | 4,600 | 60 | 290 | 345 | 115 |
| | • *Same Land Use w/10% Increase*[19] | | *67,440* | *745* | *720* | *3,200* | *2,945* |
| | **DIFFERENCE** | | +5,040 | +55 | +60 | +245 | +220 |
| 9 | Commercial | 56,192 SF | 5,000 | 70 | 40 | 230 | 230 |
| | • *Low Residential* | *20 DU* | *200* | *5* | *15* | *15* | *5* |
| | **DIFFERENCE** | | -4,800 | -65 | -25 | -215 | -225 |
| 10 | Medium Residential | 104 DU | 800 | 10 | 50 | 60 | 20 |
| | • *Low Residential* | *35 DU* | *350* | *5* | *20* | *25* | *10* |
| | **DIFFERENCE** | | -450 | -5 | -30 | -35 | -10 |
| 11 | Hospital | 1,067,220 SF | 17,900 | 875 | 360 | 340 | 790 |
| | Business Park | 980,100 SF | 14,000 | 1,350 | 235 | 325 | 1,130 |
| | •*Manufacturing*[20] | *2,195,424 SF* | *5,900* | *1,120* | *90* | *615* | *540* |
| | • *Office Building*[20] | *2,090,880 SF* | *4,300* | *575* | *70* | *100* | *470* |
| | • *Retail*[19] | *261,360 SF* | *10,300* | *145* | *85* | *485* | *485* |
| | **DIFFERENCE** | | -11,400 | -385 | -350 | +535 | -425 |
| 12 | Medium Residential | 40 DU | 320 | 5 | 20 | 25 | 10 |
| | • *Retail*[19] | *14,723 SF* | *1,050* | *15* | *10* | *50* | *50* |
| | • *Office Building*[20] | *58,893 SF* | *660* | *80* | *10* | *15* | *75* |
| | **DIFFERENCE** | | +1,390 | +90 | 0 | +40 | +115 |
| 13 | Medium Residential | 32 DU | 260 | 5 | 15 | 20 | 5 |
| | • *Retail*[19] | *11,500 SF* | *920* | *15* | *10* | *40* | *40* |
| | • *Office Building*[20] | *46,000 SF* | *545* | *65* | *10* | *15* | *60* |
| | **DIFFERENCE** | | +1,205 | +75 | +5 | +35 | +95 |

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[19] A 20 - 30% passby reduction was taken.

[20] A 30% reduction was taken due to double counting of trips and trips remaining internal.

## TABLE II-4 (Continued)

## TRIP GENERATION COMPARISON

| | | | TRIP ENDS | AM PEAK HOUR | | PM PEAK HOUR | |
|---|---|---|---|---|---|---|---|
| AREA | (FROM-*TO*) LAND USE | SIZE | DAILY | IN | OUT | IN | OUT |
| 14 | Manufacturing | 553,000 SF | 2,100 | 405 | 35 | 220 | 195 |
| | • *Retail*[21] | *140,000 SF* | *6,000* | *90* | *50* | *285* | *285* |
| | • *Office Building*[22] | *560,000 SF* | *3,600* | *455* | *55* | *80* | *385* |
| | DIFFERENCE | | +7,500 | +140 | +70 | +145 | +475 |
| 15 | Medium Residential | 27 DU | 215 | 5 | 15 | 15 | 5 |
| | • *Low Residential* | *9 DU* | *90* | *NOM* | *5* | *5* | *5* |
| | DIFFERENCE | | -125 | -5 | -10 | -10 | 0 |
| 16 | Commercial | 289,238 SF | 13,700 | 190 | 110 | 645 | 645 |
| | • *Office Building*[22] | *231,390 SF* | *1,800* | *230* | *30* | *40* | *200* |
| | • *Medical Office*[22] | *578,477 SF* | *13,900* | *840* | *250* | *495* | *1,160* |
| | DIFFERENCE | | +2,000 | +880 | +170 | -110 | +715 |
| 17 | Commercial | 364,162 SF | 15,900 | 220 | 130 | 750 | 750 |
| | • *Office Building*[22] | *291,329 SF* | *2,200* | *275* | *35* | *50* | *240* |
| | • *Medical Office*[22] | *728,323 SF* | *17,400* | *1,060* | *315* | *625* | *1,460* |
| | DIFFERENCE | | +3,700 | 1,115 | +220 | -75 | +950 |
| 18 | Commercial | 58,153 SF | 5,000 | 75 | 45 | 230 | 230 |
| | • *Med. Residential* | *64 DU* | *500* | *5* | *30* | *40* | *15* |
| | DIFFERENCE | | -4,500 | -70 | -15 | -190 | -215 |
| 19 | Medium Residential | 34 DU | 270 | 5 | 20 | 20 | 10 |
| | • *Low Residential* | *11 DU* | *110* | *5* | *10* | *10* | *5* |
| | DIFFERENCE | | -160 | 0 | -10 | -10 | -5 |
| 20 | Medium Residential | 200 DU | 1,600 | 20 | 100 | 120 | 40 |
| | • *Office Building*[22] | *144,619 SF* | *1,300* | *160* | *20* | *30* | *140* |
| | • *Medical Office*[22] | *361,548 SF* | *8,700* | *525* | *160* | *310* | *725* |
| | DIFFERENCE | | +8,400 | +665 | +80 | +220 | +825 |

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[21] A 20 - 30% passby reduction was taken.

[22] A 30% reduction was taken due to double counting of trips and trips remaining internal.

# TABLE II-4 (Continued)

## TRIP GENERATION COMPARISON

|  |  |  | TRIP ENDS | AM PEAK HOUR |  | PM PEAK HOUR |  |
|---|---|---|---|---|---|---|---|
| **AREA** | (FROM-*TO*)<br>**LAND USE** | **SIZE** | **DAILY** | **IN** | **OUT** | **IN** | **OUT** |
| 21 | Medium Residential | 227 DU | 1,800 | 20 | 115 | 135 | 45 |
|  | • *Retail*[23] | *82,503 SF* | *3,100* | *45* | *30* | *145* | *145* |
|  | • *Office Building*[24] | *330,010 SF* | *2,400* | *300* | *40* | *50* | *260* |
|  | **DIFFERENCE** |  | **+3,700** | **+325** | **-45** | **+60** | **+360** |
| 22 | Manufacturing | 913,993 SF | 3,500 | 670 | 55 | 365 | 320 |
|  | • *Manufacturing* | *485,920 SF* | *1,300* | *250* | *20* | *135* | *120* |
|  | • *Office Building*[24] | *462,781 SF* | *3,200* | *390* | *50* | *70* | *330* |
|  | • *Retail*[23] | *57,848 SF* | *2,500* | *40* | *20* | *115* | *115* |
|  | **DIFFERENCE** |  | **+3,500** | **+10** | **+35** | **-45** | **+245** |
| 23 | Manufacturing | 8,113,756 SF | 31,200 | 5,925 | 485 | 3,245 | 2,840 |
|  | • *Business Park*[23] | *2,861,892 SF* | *28,800* | *2,765* | *480* | *660* | *2,300* |
|  | • *Med. Residential* | *700 DU* | *5,600* | *10* | *350* | *420* | *140* |
|  | • *Open Space* |  | *0* | *0* | *0* | *0* | *0* |
|  | **DIFFERENCE** |  | **+3,200** | **-3,150** | **+345** | **-2,165** | **-400** |
| 24 | Manufacturing | 120,443 SF | 460 | 90 | 10 | 50 | 40 |
|  | • *Retail*[23] | *30,492 SF* | *1,700* | *25* | *15* | *75* | *75* |
|  | • *Office Building*[24] | *121,968 SF* | *1,100* | *140* | *20* | *25* | *125* |
|  | **DIFFERENCE** |  | **+2,340** | **+75** | **+25** | **+50** | **+160** |
| 25 | Commercial | 40,293 SF | 4,000 | 60 | 35 | 185 | 185 |
|  | Low/Med Residential | 31 DU | 310 | 5 | 20 | 20 | 10 |
|  | Medium Residential | 44 DU | 350 | 5 | 20 | 25 | 10 |
|  | • *Low Residential* | *44 DU* | *440* | *10* | *25* | *30* | *15* |
|  | **DIFFERENCE** |  | **-4,220** | **-60** | **-50** | **-200** | **-190** |
| 26 | Manufacturing | 158,985 SF | 600 | 115 | 10 | 65 | 55 |
|  | • *Low Residential* | *37 DU* | *400* | *10* | *20* | *25* | *10* |
|  | **DIFFERENCE** |  | **-200** | **-105** | **+10** | **-40** | **-45** |

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[23] A 20 - 30% passby reduction was taken.

[24] A 30% reduction was taken due to double counting of trips and trips remaining internal.

## IV. TRANSIT

Those households which do not have automobiles, the disabled, children and senior citizens are among those who depend on public transit and paratransit service. There are approximately 1,700 households in the City of Downey which have no automobile (1990 Census). Many of these households are located in the Southern portion of the city.

- **Public Transportation**

The primary public transportation supplier in Los Angeles County is the Southern California Rapid Transit District (RTD) which provides bus service to Downey citizens. In general, the buses operate on routes limited to the City's major streets, with a focus on regional, rather than local, travel. RTD currently operates nine lines through the City of Downey. The RTD is primarily responsible for the review and designation of services, and frequently revises schedules and routes according to expressed need. Exhibit II-8 shows current RTD route structure within the City of Downey.

RTD also serves a Park-and-Ride site within Downey, located on the western side of Lakewood Boulevard, just north of the Santa Ana Freeway. The site currently has parking spaces for 85 vehicles, providing access for an RTD line that serves downtown Los Angeles. RTD plans to restripe the existing lot so that approximately 95 parking spaces would be available, and also plans to develop another Park-and-Ride lot directly across Lakewood Boulevard which would provide an additional 20 spaces.

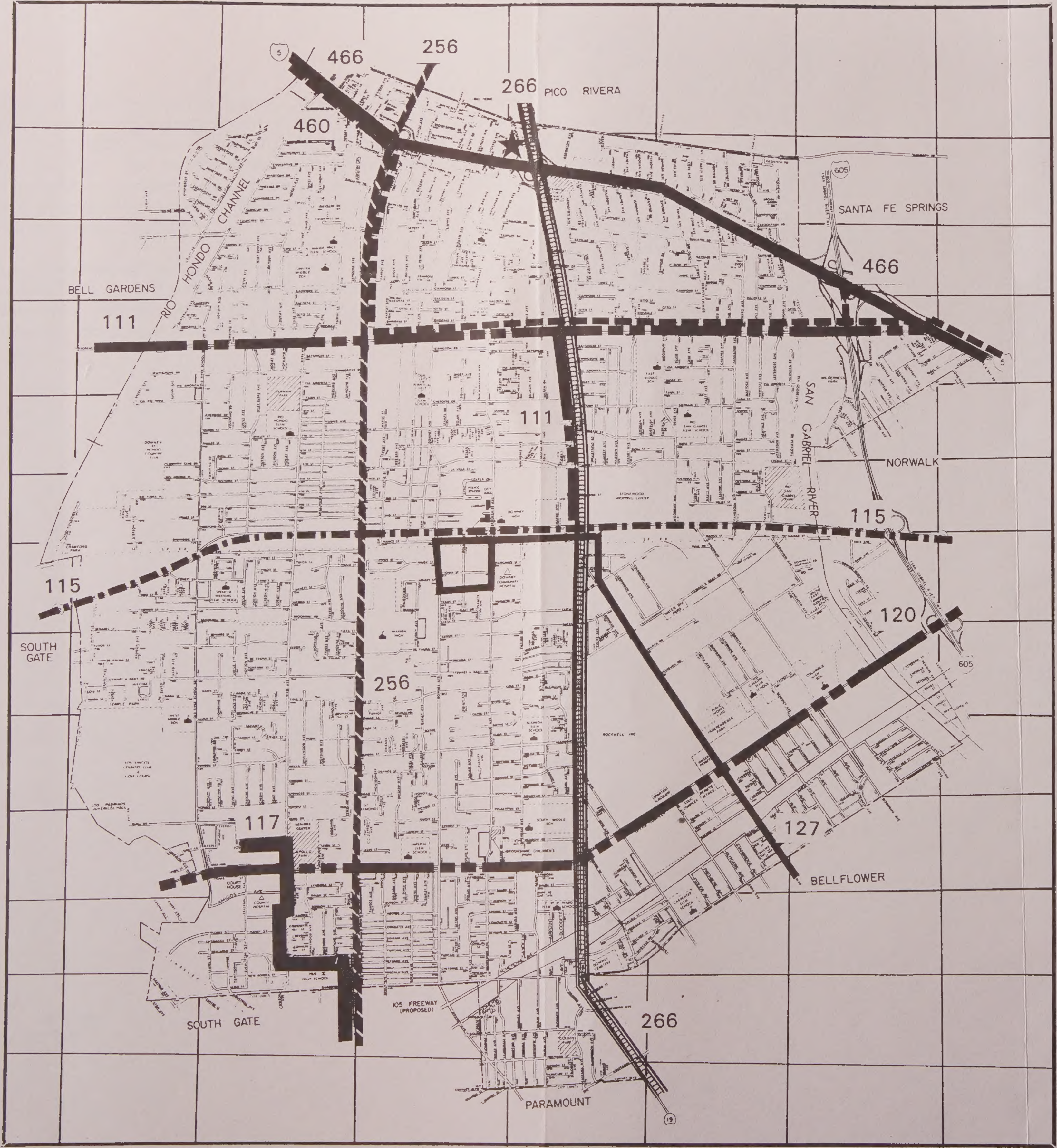
In addition to its fixed-route service, the RTD has begun operation of light rail service. Although current rail service is only available on the Blue Line which operates from downtown Long Beach to downtown Los Angeles, additional rail service is planned for the area. The Green Line will operate along the new Glenn Anderson Freeway (I-105) right-of-way. According to the Los Angeles County Transportation Commission (LACTC), the Green Line is expected to be operational in October of 1994.

The Green Line will travel through the southern portion of Downey, providing accessible rail service to city residents. The Green Line will link up with existing Blue Line and will travel to Los Angeles International Airport. Plans include a local rail transit station to be constructed at the Lakewood Boulevard intersection with the Glenn Anderson Freeway. Current plans also call for a Park-and-Ride lot at this station, with space for 435 vehicles.

# LEGEND

| | |
|---|---|
| 266 | RTD Bus Route Number |
| ★ | Park & Ride Lot |

SOURCE: City of Downey



5
466
256
266
PICO RIVERA
460
605
SANTA FE SPRINGS
466
RIO HONDO CHANNEL
BELL GARDENS
111
111
SAN GABRIEL RIVER
NORWALK
115
115
SOUTH GATE
120
605
256
117
127
BELLFLOWER
SOUTH GATE
105 FREEWAY (PROPOSED)
266
PARAMOUNT
19

# CURRENT RTD ROUTE STRUCTURE

## EXHIBIT II-8

## CIRCULATION CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

- **Paratransit**

In addition to RTD's regional service, the City operates Downey Transit, a transit program for seniors and disabled residents which has been in operation since the mid-1970's. The service is scheduled seven days a week and eligible riders are persons who are 50 years of age or older and persons who are disabled. The service is provided for Downey residents, although elderly or disabled persons from neighboring communities may use the service for trips within Downey. Trips are primarily limited to the Downey City limits, but some trips are made to designated points outside the City.

The Transit service is currently available only through a dial-a-ride program. The City's Recreation and Community Services Commission recently completed an Intracommunity Transit Study, and one of the recommendations of the study is for the development of a fixed-route service available to all Downey residents. This service would be funded through Proposition "A" and "C" funds.

## V. NON-MOTORIZED CIRCULATION

- **Pedestrians**

The streets in Downey were designed for automobile circulation and may not adequately serve the needs of the pedestrian. Pedestrian circulation is an important consideration, especially now that alternative modes of transportation are increasingly important for reducing traffic congestion and air quality problems.

There are areas, such as the new Green Line Station on Lakewood Boulevard, that would benefit from sidewalk installation. Today, installation of sidewalks is required with all new construction projects. However, there are a number of areas, especially in older residential neighborhoods in northwest and northeast Downey, that do not have complete sidewalks because they were developed prior to this requirement.

- **Bicycles**

There is an increasing demand in the Southern California area for bike routes. Biking has become an increasingly popular form of transportation primarily because it is a viable alternative to commuting by car. Biking is economical, convenient, and provides a way to get in shape while helping to improve air quality and reducing the number of automobiles on the road.

Bicycle trails are physically separated from the roadway and provide greater protection for bicyclists than do bike routes. Although Downey does not have any designated bike trails within the city, one policy from the Open Space/Recreation Chapter of the General Plan calls for a bike path that would link the existing county bike trails along the San Gabriel and Rio Hondo river beds. The Southern Pacific Railroad right-of-way, that parallels Firestone Boulevard, has been suggested as an area that could be developed as such a connector bike path.

## VI. UTILITY INFRASTRUCTURE

Utility services are provided to Downey by a number of utility companies. Electricity is provided by the Southern California Edison Company, and gas by the Southern California Gas Company. Telephone service is provided by GTE to Downey residents. The City's Water Division supplies water to city residents. Downey is located within Los Angeles County Sanitation District No. 2 and the City provides maintenance to many of the lines.

There will be adequate supplies of electricity, natural gas and telephone service for full implementation of the 2010 General Plan. Solid waste disposal is impacted by the lack of available landfills. AB 939 requires all cities to reduce solid waste by 50% by the year 2000. The Conservation Chapter of the General Plan contains a policy stating that the City shall comply with this requirement.

The City recently completed a sewer capacity study and Capital Improvements Program for sewers. Over-capacity sewer problems have been cured, and the Capital Improvements Program concentrates on marginal capacity and near capacity sewers, using 2010 Land Use figures.

Storm drain deficiencies are identified in the Safety Chapter of the General Plan. Sufficient water for fire flow is also discussed in the Safety Chapter. The Safety Chapter contains policies for upgrading the water system, including the upgrade of the fire flow system.

In general, companies and districts providing utility service to Downey have indicated a general ability to accommodate the level of development represented in the General Plan Land Use Chapter, particularly since little growth is anticipated.

## VII. GLOSSARY

- **Collector**---A street for traffic moving between arterial and local streets, generally providing direct access to properties.
- **Freeway**---A highway serving high-speed traffic with no crossings interrupting the flow of traffic (i.e., no crossings at grade). Streets and Highways Code Section 23.5, in part, states that "Freeway means a highway in respect to which the owners of abutting lands have no right or easement of access to or from their abutting lands or in respect to which such owners have only limited or restricted right or easement of access".
- **High Occupancy Vehicle (HOV) Lanes**---Provide priority measures for buses, carpools and vanpools over all or part of the day. HOV lanes offer incentives for choosing a higher-occupancy commute mode that can increase efficiency in congested corridors.
- **Infrastructure**---The physical systems and services which support development and people, such as streets and highways, transit services, airports, water and sewer systems, and the like.
- **Levels of Service**---According to the Transportation Research Board's 1985 *Highway Capacity Manual Special Report 209*, level of service is a qualitative measure describing the efficiency of a traffic stream. It also describes the way such conditions are perceived by persons traveling in a traffic stream. Levels of service measurements describe variables such as speed and travel time, freedom to maneuver, traffic interruptions, traveler comfort and convenience, and safety. Measurements are graduated ranging from level of service A (representing free flow and excellent comfort for the motorist, passenger or pedestrian) to level of service F (reflecting highly congested traffic conditions where traffic volumes exceed the capacities of streets, sidewalks, etc.). Levels of service can be determined for a number of transportation factors including freeways, multi-lane highways, signalized intersections, intersections that are not signalized, arterials, transit and pedestrian facilities.
- **Local Street**---A street providing direct access to properties and designed to discourage through-traffic.

- **Major Arterial**---A major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties.

- **Paratransit**---Transportation systems, such as jitneys, car pooling, van pooling, taxi service and dial-a-ride arrangements.

- **Transportation Demand Management** (TDM)---The implementation of strategies which will encourage individuals to either change their mode of travel from a single-occupancy vehicle, eliminate the trip altogether, or commute at other than peak periods.

- **Transportation System Management** (TSM)---Strategies that are designed to improve traffic flow through modifications in the operation of existing facilities.

cn.a:disc5.circhp.2

# TECHNICAL APPENDIX

**APPENDIX A:**

Explanation of Intersection Capacity Utilization and Level Of Service

**APPENDIX B:**

ICU Worksheets

# APPENDIX A

## EXPLANATION OF INTERSECTION CAPACITY UTILIZATION

## AND

## LEVEL OF SERVICE

# APPENDIX A

## EXPLANATION OF INTERSECTION CAPACITY UTILIZATION

The capacity of a street is nearly always greater between intersection and less at intersections. The reason for this is that the traffic flows continuously between intersections and only part of the time at intersections. To study intersection capacity, a technique known as Intersection Capacity Utilization (ICU) has been developed. ICU analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement; (b) summing the times for the movements; and (c) comparing the total time required to the time available. For example, if for north-south traffic the northbound traffic is 1,000 vehicles per hour, the southbound traffic is 800 vehicles per hour, and the capacity of either approach is 2,000 vehicles per hour of green, then the northbound traffic is critical and requires 1,000/2,000 or 50 percent of the signal time. If for the east-west traffic, 40 percent of the signal time is required, then it can be seen that the ICU is 50 plus 40, or 90 percent. When left-turn phases exist, they are incorporated into the analysis. As ICU's approach 100 percent, the quality of traffic service approaches Level of Service (LOS) E, as defined in the Highway Capacity Manual, Special Report 87, Highway Research Board, 1965.

Level of Service is used to describe quality of traffic flow. Levels of Service A to C operate quite well. Level of Service D is typically the Level of Service for which an urban street is designed. Level of Service E is the maximum volume a facility can accommodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration. A description of the various levels of service appears on the following page.

The ICU calculations assume that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersection is not valid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volumes. It is possible to have an ICU well below 1.0, yet have severe traffic congestion. This would occur because one or more movements is not getting enough time to satisfy its demand with excess time existing on other moves.

Capacity is often defined in terms of roadway width. However, standard lanes have approximately the same capacity whether they are 11 foot or 14 foot lanes. Our data indicates a typical lane, whether a through lane or left-turn lane has a capacity of approximately 1600 vehicles per lane per hour of green time. The 1985 Highway Capacity Manual found capacities of 1800 vehicles per lane per hour of green time; however the 1600 value has been widely utilized and results in a conservative analysis.

# APPENDIX A

## LEVEL OF SERVICE DESCRIPTIONS

| LEVEL OF SERVICE | | NOMINAL RANGE OF ICU (a) |
|---|---|---|
| A | Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle. | 0.00 - 0.60 |
| B | Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods. | 0.61 - 0.70 |
| C | Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard. | 0.71 - 0.80 |
| D | Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during traffic periods; often used as design standard in urban areas. | 0.81 - 0.90 |
| E | Capacity; the maximum traffic volumes an intersection can accommodate restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicle which wait through more than one signal cycle during peak traffic periods. | 0.91 - 1.00 |
| F | Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume which occurs at Level of Service E. | Not Meaningful |

(a) ICU (Intersection Capacity Utilization) at various Levels of Service versus Level of Service E for urban arterial streets.

# APPENDIX B

## ICU WORKSHEETS

# INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BLVD. & GALLATIN RD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 70 | | 0 | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| NT | 2 | 3 | 3400 | 5100 | 1426 | -195 | 240 | 0.44 | * | 0.38 | * | 0.45 | * | 0.30 | * |
| NR | 0 | 0 | 0 | 0 | 63 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 103 | | 0 | 0.06 | * | 0.06 | * | 0.06 | * | 0.06 | * |
| ST | 2 | 3 | 3400 | 5100 | 830 | 10 | -155 | 0.27 | | 0.27 | | 0.23 | | 0.15 | |
| SR | 0 | 0 | 0 | 0 | 93 | | 0 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 343 | | 0 | 0.20 | * | 0.20 | * | 0.20 | * | 0.10 | |
| ET | 1 | 1 | 1700 | 1700 | 156 | 0 | 0 | 0.09 | | 0.09 | | 0.09 | | 0.09 | * |
| ER | 1 | 1 | 1700 | 1700 | 56 | | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| WL | 1 | 1 | 1700 | 1700 | 80 | | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | * |
| WT | 1 | 0 | 1700 | 0 | 268 | 0 | 0 | 0.25 | * | 0.25 | * | 0.25 | * | | |
| WR | 0 | 0 | 0 | 0 | 162 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME: LAK&GAL1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.50 | 0.44 | 0.51 | 0.36 |
| EAST/WEST CRITICAL SUMS = | 0.45 | 0.45 | 0.45 | 0.14 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 1.00 | 0.94 | 1.01 | 0.55 |
| LOS = | E | E | F | A |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: LAKEWOOD BLVD. & GALLATIN RD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 100 | | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| NT | 2 | 3 | 3400 | 5100 | 1069 | -70 | 500 | 0.34 | * | 0.32 | * | 0.47 | * | 0.31 | * |
| NR | 0 | 0 | 0 | 0 | 90 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 244 | | 0 | 0.14 | * | 0.14 | * | 0.14 | * | 0.14 | * |
| ST | 2 | 3 | 3400 | 5100 | 965 | 45 | -265 | 0.32 | | 0.33 | | 0.25 | | 0.17 | |
| SR | 0 | 0 | 0 | 0 | 116 | | 0 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 347 | | 0 | 0.20 | * | 0.20 | * | 0.20 | * | 0.10 | * |
| ET | 1 | 1 | 1700 | 1700 | 221 | 0 | 0 | 0.13 | | 0.13 | | 0.13 | | 0.13 | |
| ER | 1 | 1 | 1700 | 1700 | 27 | | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |
| WL | 1 | 1 | 1700 | 1700 | 130 | | 0 | 0.08 | | 0.08 | | 0.08 | | 0.08 | |
| WT | 1 | 1 | 1700 | 1700 | 194 | 0 | 0 | 0.18 | * | 0.18 | * | 0.18 | * | 0.18 | * |
| WR | 0 | 0 | 0 | 0 | 112 | | 0 | | | | | | | | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.48 | 0.46 | 0.61 | 0.45 |
| EAST/WEST CRITICAL SUMS = | 0.38 | 0.38 | 0.38 | 0.28 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.91 | 0.89 | 1.04 | 0.78 |
| LOS = | E | D | F | C |

ICU SPREADSHEET FILE NAME | LAK&GAL1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FLORENCE AVE. & PARAMOUNT BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 211 | | -5 | 0.12 | | 0.12 | | 0.12 | | 0.12 | |
| NT | 2 | 2 | 3400 | 3400 | 989 | -70 | -15 | 0.29 | * | 0.27 | * | 0.27 | * | 0.27 | * |
| NR | 1 | 1 | 1700 | 1700 | 139 | 80 | -5 | 0.08 | | 0.13 | | 0.13 | | 0.13 | |
| SL | 1 | 1 | 1700 | 1700 | 191 | 0 | -10 | 0.11 | * | 0.11 | * | 0.11 | * | 0.11 | * |
| ST | 2 | 2 | 3400 | 3400 | 697 | -50 | 230 | 0.21 | | 0.19 | | 0.26 | | 0.26 | |
| SR | 1 | 1 | 1700 | 1700 | 157 | | 35 | 0.09 | | 0.09 | | 0.11 | | 0.11 | |
| EL | 1 | 2 | 1700 | 3400 | 208 | | 200 | 0.12 | * | 0.12 | * | 0.24 | * | 0.12 | * |
| ET | 3 | 3 | 5100 | 5100 | 781 | -30 | -5 | 0.18 | | 0.17 | | 0.17 | | 0.17 | |
| ER | 0 | 0 | 0 | 0 | 136 | | -5 | | | | | | | | |
| WL | 1 | 2 | 1700 | 3400 | 202 | 15 | 40 | 0.12 | | 0.13 | | 0.15 | | 0.08 | |
| WT | 3 | 3 | 5100 | 5100 | 1530 | -90 | -5 | 0.34 | * | 0.32 | * | 0.32 | * | 0.32 | * |
| WR | 0 | 0 | 0 | 0 | 184 | | -10 | | | | | | | | |

ICU SPREADSHEET FILE NAME: FLO&PAR1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.40 | 0.38 | 0.38 | 0.38 |
| EAST/WEST CRITICAL SUMS = | 0.46 | 0.44 | 0.56 | 0.44 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.91 | 0.87 | 0.99 | 0.87 |
| LOS = | E | D | E | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FLORENCE AVE. & PARAMOUNT BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 252 | | 0 | 0.15 | * | 0.15 | * | 0.15 | | 0.15 | |
| NT | 2 | 2 | 3400 | 3400 | 917 | -20 | 165 | 0.27 | | 0.26 | | 0.31 | * | 0.31 | * |
| NR | 1 | 1 | 1700 | 1700 | 202 | 50 | 10 | 0.12 | | 0.15 | | 0.15 | | 0.15 | |
| SL | 1 | 1 | 1700 | 1700 | 225 | | -70 | 0.13 | | 0.13 | | 0.09 | * | 0.09 | * |
| ST | 2 | 2 | 3400 | 3400 | 990 | 0 | -195 | 0.29 | * | 0.29 | * | 0.23 | | 0.23 | |
| SR | 1 | 1 | 1700 | 1700 | 242 | | 155 | 0.14 | | 0.14 | | 0.23 | | 0.23 | |
| EL | 1 | 2 | 1700 | 3400 | 164 | | -40 | 0.10 | | 0.10 | | 0.07 | | 0.04 | |
| ET | 3 | 3 | 5100 | 5100 | 1353 | -15 | -75 | 0.31 | * | 0.30 | * | 0.29 | * | 0.29 | * |
| ER | 0 | 0 | 0 | 0 | 203 | | -5 | | | | | | | | |
| WL | 1 | 2 | 1700 | 3400 | 220 | 105 | -40 | 0.13 | * | 0.19 | * | 0.17 | * | 0.08 | * |
| WT | 3 | 3 | 5100 | 5100 | 1118 | 275 | -40 | 0.24 | | 0.30 | | 0.28 | | 0.28 | |
| WR | 0 | 0 | 0 | 0 | 122 | | -65 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.44 | 0.44 | 0.40 | 0.40 |
| EAST/WEST CRITICAL SUMS = | 0.44 | 0.49 | 0.46 | 0.37 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.93 | 0.98 | 0.91 | 0.82 |
| LOS = | E | E | E | D |

ICU SPREADSHEET FILE NAME FLO&PAR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FLORENCE AVE. & LAKEWOOD BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 197 | -10 | 5 | 0.12 | * | 0.11 | | 0.11 | | 0.06 | |
| NT | 3 | 3 | 5100 | 5100 | 976 | 95 | 215 | 0.21 | | 0.23 | * | 0.27 | * | 0.27 | * |
| NR | 0 | 0 | 0 | 0 | 120 | | -10 | | | | | | | | |
| SL | 1 | 2 | 1700 | 3400 | 109 | 30 | 0 | 0.06 | | 0.08 | * | 0.08 | * | 0.04 | * |
| ST | 3 | 3 | 5100 | 5100 | 694 | 135 | -190 | 0.16 | * | 0.19 | | 0.17 | | 0.17 | |
| SR | 0 | 0 | 0 | 0 | 131 | 30 | 45 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 163 | 165 | 20 | 0.10 | * | 0.19 | * | 0.20 | * | 0.10 | * |
| ET | 3 | 3 | 5100 | 5100 | 928 | -120 | -15 | 0.20 | | 0.18 | | 0.18 | | 0.18 | |
| ER | 0 | 0 | 0 | 0 | 108 | -20 | 20 | | | | | | | | |
| WL | 1 | 2 | 1700 | 3400 | 131 | | -5 | 0.08 | | 0.08 | | 0.07 | | 0.04 | |
| WT | 3 | 3 | 5100 | 5100 | 1778 | -200 | -30 | 0.40 | * | 0.39 | * | 0.38 | * | 0.38 | * |
| WR | 0 | 0 | 0 | 0 | 248 | 165 | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.28 | 0.31 | 0.35 | 0.31 |
| EAST/WEST CRITICAL SUMS = | 0.50 | 0.58 | 0.58 | 0.48 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.83 | 0.94 | 0.98 | 0.84 |
| LOS = | D | E | E | D |

ICU SPREADSHEET FILE NAME | FLO&LAK1 |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FLORENCE AVE. & LAKEWOOD BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 268 | 25 | 50 | 0.16 | | 0.17 | | 0.20 | | 0.10 | |
| NT | 3 | 3 | 5100 | 5100 | 1152 | 140 | 510 | 0.26 | * | 0.28 | * | 0.38 | * | 0.38 | * |
| NR | 0 | 0 | 0 | 0 | 156 | | -15 | | | | | | | | |
| SL | 1 | 2 | 1700 | 3400 | 232 | 205 | 0 | 0.14 | * | 0.26 | * | 0.26 | * | 0.13 | * |
| ST | 3 | 3 | 5100 | 5100 | 1067 | 270 | -300 | 0.24 | | 0.34 | | 0.28 | | 0.28 | |
| SR | 0 | 0 | 0 | 0 | 171 | 205 | -5 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 276 | 100 | 35 | 0.16 | | 0.22 | * | 0.24 | * | 0.12 | * |
| ET | 3 | 3 | 5100 | 5100 | 1459 | -120 | -105 | 0.32 | * | 0.31 | | 0.29 | | 0.29 | |
| ER | 0 | 0 | 0 | 0 | 198 | 40 | 5 | | | | | | | | |
| WL | 1 | 2 | 1700 | 3400 | 196 | | -20 | 0.12 | * | 0.12 | | 0.10 | | 0.05 | |
| WT | 3 | 3 | 5100 | 5100 | 1028 | -80 | -110 | 0.23 | | 0.24 | * | 0.22 | * | 0.22 | * |
| WR | 0 | 0 | 0 | 0 | 160 | 100 | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME FLO&LAK1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.40 | 0.54 | 0.64 | 0.51 |
| EAST/WEST CRITICAL SUMS = | 0.44 | 0.46 | 0.46 | 0.34 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.89 | 1.05 | 1.15 | 0.90 |
| LOS = | D | F | F | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** FLORENCE AVE. & WOODRUFF AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 290 | -10 | 0 | 0.17 | * | 0.16 | * | 0.16 | * | 0.16 | * |
| NT | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| NR | 1 | 1 | 1700 | 1700 | 72 | -15 | 0 | 0.04 | | 0.03 | | 0.03 | | 0.03 | |
| SL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | 0 | | 0 | | * | | * | | * | | * |
| SR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | 0 | | 0 | | * | | * | | * | | * |
| ET | 2 | 2 | 3400 | 3400 | 903 | -70 | -20 | 0.33 | | 0.30 | | 0.30 | | 0.30 | |
| ER | 0 | 0 | 0 | 0 | 218 | -20 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 143 | -25 | 0 | 0.08 | | 0.07 | | 0.07 | | 0.07 | |
| WT | 2 | 2 | 3400 | 3400 | 2008 | -55 | -30 | 0.59 | * | 0.57 | * | 0.57 | * | 0.57 | * |
| WR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.17 | 0.16 | 0.16 | 0.16 |
| EAST/WEST CRITICAL SUMS = | 0.59 | 0.57 | 0.57 | 0.57 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.81 | 0.78 | 0.78 | 0.78 |
| LOS = | D | C | C | C |

ICU SPREADSHEET FILE NAME | FLO&WOO1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

# INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FLORENCE AVE. & WOODRUFF AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 135 | 25 | 0 | 0.08 | * | 0.09 | * | 0.09 | * | 0.09 | * |
| NT | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| NR | 1 | 1 | 1700 | 1700 | 148 | | 0 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| SL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | 0 | | 0 | | * | | * | | * | | * |
| SR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| ET | 2 | 2 | 3400 | 3400 | 1599 | 40 | -110 | 0.52 | * | 0.54 | * | 0.51 | * | 0.51 | * |
| ER | 0 | 0 | 0 | 0 | 159 | 40 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 131 | 10 | 0 | 0.08 | * | 0.08 | * | 0.08 | * | 0.08 | * |
| WT | 2 | 2 | 3400 | 3400 | 1228 | -30 | -110 | 0.36 | | 0.35 | | 0.32 | | 0.32 | |
| WR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME FLO&WOO1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.08 | 0.09 | 0.09 | 0.09 |
| EAST/WEST CRITICAL SUMS = | 0.60 | 0.62 | 0.59 | 0.59 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.73 | 0.76 | 0.73 | 0.73 |
| LOS = | C | C | C | C |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: I-605 SB RAMPS & FLORENCE AVE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | | 0 | | * | | * | | * | | * |
| NR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| SL | 2 | 2 | 3400 | 3400 | 572 | | 0 | 0.17 | * | 0.17 | * | 0.17 | * | 0.17 | * |
| ST | 0 | 0 | 0 | 0 | 50 | | 0 | | | | | | | | |
| SR | 1 | 1 | 1700 | 1700 | 364 | | -10 | 0.21 | | 0.21 | | 0.21 | | 0.21 | |
| EL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| ET | 2 | 2 | 3400 | 3400 | 864 | -75 | -15 | 0.25 | * | 0.23 | * | 0.23 | * | 0.23 | * |
| ER | 1 | 1 | 1700 | 1700 | 243 | | -5 | 0.14 | | 0.14 | | 0.14 | | 0.14 | |
| WL | 1 | 1 | 1700 | 1700 | 544 | | 0 | 0.32 | * | 0.32 | * | 0.32 | * | 0.32 | * |
| WT | 2 | 2 | 3400 | 3400 | 1647 | -40 | -25 | 0.48 | | 0.47 | | 0.47 | | 0.47 | |
| WR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |

| | EXISTING V/C | EXISTING +OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.17 | 0.17 | 0.17 | 0.17 |
| EAST/WEST CRITICAL SUMS = | 0.57 | 0.55 | 0.55 | 0.55 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.79 | 0.77 | 0.77 | 0.77 |
| LOS = | C | C | C | C |

ICU SPREADSHEET FILE NAME | 605&FLOR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: I-605 SB RAMPS & FLORENCE AVE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | | 0 | | * | | * | | * | | * |
| NR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| SL | 2 | 2 | 3400 | 3400 | 735 | | 0 | 0.22 | * | 0.22 | * | 0.22 | * | 0.22 | * |
| ST | 0 | 0 | 0 | 0 | 84 | | 0 | | | | | | | | |
| SR | 1 | 1 | 1700 | 1700 | 365 | | -35 | 0.21 | | 0.21 | | 0.19 | | 0.19 | |
| EL | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |
| ET | 2 | 2 | 3400 | 3400 | 1204 | 90 | -75 | 0.35 | * | 0.38 | * | 0.36 | * | 0.36 | * |
| ER | 1 | 1 | 1700 | 1700 | 220 | | -35 | 0.13 | | 0.13 | | 0.11 | | 0.11 | |
| WL | 1 | 1 | 1700 | 1700 | 462 | | 0 | 0.27 | * | 0.27 | * | 0.27 | * | 0.27 | * |
| WT | 2 | 2 | 3400 | 3400 | 955 | 10 | -75 | 0.28 | | 0.28 | | 0.26 | | 0.26 | |
| WR | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME 605&FLOR1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.22 | 0.22 | 0.22 | 0.22 |
| EAST/WEST CRITICAL SUMS = | 0.62 | 0.65 | 0.63 | 0.63 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.89 | 0.92 | 0.90 | 0.90 |
| LOS = | D | E | D | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: STUDEBAKER RD. & FLORENCE AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 712 | | -10 | | | | | | | | |
| NT | 2 | 2 | 3400 | 3400 | 10 | | 0 | 0.21 | * | 0.21 | * | 0.21 | * | 0.21 | * |
| NR | 2 | 2 | 3400 | 3400 | 487 | | 0 | 0.14 | | 0.14 | | 0.14 | | 0.14 | |
| SL | 0 | 0 | 0 | 0 | 4 | | 0 | | * | | * | | * | | * |
| ST | 1 | 1 | 1700 | 1700 | 8 | | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| SR | 0 | 0 | 0 | 0 | 2 | | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 10 | | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| ET | 3 | 3 | 5100 | 5100 | 949 | -85 | -10 | 0.27 | * | 0.25 | * | 0.25 | * | 0.25 | * |
| ER | 0 | 0 | 0 | 0 | 418 | | -5 | | | | | | | | |
| WL | 2 | 2 | 3400 | 3400 | 252 | | 0 | 0.07 | * | 0.07 | * | 0.07 | * | 0.07 | * |
| WT | 3 | 3 | 5100 | 5100 | 1485 | -20 | -15 | 0.29 | | 0.29 | | 0.29 | | 0.29 | |
| WR | 0 | 0 | 0 | 0 | 12 | | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.21 | 0.21 | 0.21 | 0.21 |
| EAST/WEST CRITICAL SUMS = | 0.34 | 0.32 | 0.32 | 0.32 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.60 | 0.58 | 0.58 | 0.58 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | FLO&STUD1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: STUDEBAKER RD. & FLORENCE AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 411 | | -35 | | | | | | | | |
| NT | 2 | 2 | 3400 | 3400 | 50 | | 0 | 0.14 | * | 0.14 | * | 0.13 | * | 0.13 | * |
| NR | 2 | 2 | 3400 | 3400 | 856 | | 0 | 0.25 | | 0.25 | | 0.25 | | 0.25 | |
| SL | 0 | 0 | 0 | 0 | 58 | | 0 | | * | | * | | * | | * |
| ST | 1 | 1 | 1700 | 1700 | 69 | | 0 | 0.10 | | 0.10 | | 0.10 | | 0.10 | |
| SR | 0 | 0 | 0 | 0 | 38 | | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 74 | | 0 | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| ET | 3 | 3 | 5100 | 5100 | 1250 | 70 | -40 | 0.41 | * | 0.42 | * | 0.40 | * | 0.40 | * |
| ER | 0 | 0 | 0 | 0 | 818 | | -35 | | | | | | | | |
| WL | 2 | 2 | 3400 | 3400 | 349 | | 0 | 0.10 | * | 0.10 | * | 0.10 | * | 0.10 | * |
| WT | 3 | 3 | 5100 | 5100 | 1129 | -10 | -40 | 0.23 | | 0.22 | | 0.22 | | 0.22 | |
| WR | 0 | 0 | 0 | 0 | 25 | | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.14 | 0.14 | 0.13 | 0.13 |
| EAST/WEST CRITICAL SUMS = | 0.51 | 0.52 | 0.50 | 0.50 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.70 | 0.71 | 0.68 | 0.68 |
| LOS = | B | C | B | B |

ICU SPREADSHEET FILE NAME | FLO&STUD1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE BLVD. & OLD RIVER SCHOOL

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 86 | | -60 | 0.05 | * | 0.05 | * | 0.02 | | 0.02 | |
| NT | 2 | 2 | 3400 | 3400 | 473 | 0 | -15 | 0.16 | | 0.16 | | 0.16 | * | 0.16 | * |
| NR | 0 | 0 | 0 | 0 | 85 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 137 | | 0 | 0.08 | | 0.08 | | 0.08 | * | 0.08 | * |
| ST | 2 | 2 | 3400 | 3400 | 598 | 0 | -5 | 0.22 | * | 0.22 | * | 0.22 | | 0.22 | |
| SR | 0 | 0 | 0 | 0 | 161 | | -5 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 148 | | -20 | 0.09 | * | 0.09 | * | 0.08 | * | 0.08 | * |
| ET | 2 | 2 | 3400 | 3400 | 990 | 30 | 65 | 0.29 | | 0.30 | | 0.32 | | 0.32 | |
| ER | 1 | 1 | 1700 | 1700 | 75 | | -50 | 0.04 | | 0.04 | | 0.01 | | 0.01 | |
| WL | 1 | 1 | 1700 | 1700 | 147 | | 0 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| WT | 2 | 2 | 3400 | 3400 | 1253 | -95 | 150 | 0.37 | * | 0.34 | * | 0.38 | * | 0.38 | * |
| WR | 1 | 1 | 1700 | 1700 | 82 | | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.27 | 0.27 | 0.24 | 0.24 |
| EAST/WEST CRITICAL SUMS = | 0.46 | 0.43 | 0.46 | 0.46 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.78 | 0.75 | 0.75 | 0.75 |
| LOS = | C | C | C | C |

ICU SPREADSHEET FILE NAME: FIR&OLD1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

```
                       INTERSECTION CAPACITY UTILIZATION ANALYSIS


               PROJECT:       DOWNEY GENERAL PLAN
               INTERVAL:      PM PEAK HOUR
               INTERSECTION:  FIRESTONE BLVD. & OLD RIVER SCHOOL
----------------------------------------------------------------------------------------------------------------------------------
||          ||       |       ||          |          ||          |          |          ||          |  |EXISTING  |  |EX+OTHER  |  |EX+OTHER  |  ||
||MOVEMENT  ||EXIST  | PROP  ||EXISTING  |PROPOSED  ||EXISTING  |  OTHER   | PROJECT  ||EXISTING  |  |+OTHER    |  |+PROJECT  |  |+PROJECT  |  ||
||          ||LANES  |LANES  ||CAPACITY  |CAPACITY  || VOLUME   |  VOLUME  |  VOLUME  ||   V/C    |  |   V/C    |  |   V/C    |  |V/C-W_IMP |  ||
||==========||=======|=======||==========|==========||==========|==========|==========||==========|==|==========|==|==========|==|==========|==||
||    NL    ||     1 |     1 ||     1700 |     1700 ||       64 |          |      -40 ||     0.04 |* |     0.04 |* |     0.01 |  |     0.01 |  ||
||    NT    ||     2 |     2 ||     3400 |     3400 ||      425 |        0 |      -45 ||     0.16 |  |     0.16 |  |     0.14 |* |     0.14 |* ||
||    NR    ||     0 |     0 ||        0 |        0 ||      103 |          |        0 ||          |  |          |  |          |  |          |  ||
||    SL    ||     1 |     1 ||     1700 |     1700 ||       70 |          |        0 ||     0.04 |  |     0.04 |  |     0.04 |* |     0.04 |* ||
||    ST    ||     2 |     2 ||     3400 |     3400 ||      436 |        0 |      -50 ||     0.17 |* |     0.17 |* |     0.14 |  |     0.14 |  ||
||    SR    ||     0 |     0 ||        0 |        0 ||      155 |          |      -65 ||          |  |          |  |          |  |          |  ||
||    EL    ||     1 |     1 ||     1700 |     1700 ||      245 |          |      -60 ||     0.14 |  |     0.14 |* |     0.11 |* |     0.11 |* ||
||    ET    ||     2 |     2 ||     3400 |     3400 ||     1561 |      135 |     -300 ||     0.46 |* |     0.50 |  |     0.41 |  |     0.41 |  ||
||    ER    ||     1 |     1 ||     1700 |     1700 ||      142 |          |      110 ||     0.08 |  |     0.08 |  |     0.15 |  |     0.15 |  ||
||    WL    ||     1 |     1 ||     1700 |     1700 ||       78 |          |        0 ||     0.05 |* |     0.05 |  |     0.05 |  |     0.05 |  ||
||    WT    ||     2 |     2 ||     3400 |     3400 ||     1073 |      345 |      575 ||     0.32 |  |     0.42 |* |     0.59 |* |     0.59 |* ||
||    WR    ||     1 |     1 ||     1700 |     1700 ||       52 |          |        0 ||     0.03 |  |     0.03 |  |     0.03 |  |     0.03 |  ||
-----------------------------------------------------------------------------------||=======================================================||
                                  ----------     NORTH/SOUTH CRITICAL SUMS =      ||     0.21     |     0.21     |     0.18     |     0.18     ||
  ICU SPREADSHEET FILE NAME|FIR&OLD1 |                                            ||-------------------------------------------------------||
                                  ----------     EAST/WEST CRITICAL SUMS =        ||     0.51     |     0.56     |     0.70     |     0.70     ||
  N = NORTHBOUND, S = SOUTHBOUND                                                  ||-------------------------------------------------------||
  E = EASTBOUND, W = WESTBOUND                   CLEARANCE =                      ||     0.05     |     0.05     |     0.05     |     0.05     ||
  L = LEFT, T = THROUGH, R = RIGHT                                                ||=======================================================||
  N.S. = NOT SIGNALIZED                          ICU VALUE =                      ||     0.77     |     0.82     |     0.93     |     0.93     ||
  LOS = LEVEL OF SERVICE                                                          ||-------------------------------------------------------||
  * DENOTES CRITICAL MOVEMENTS                   LOS =                            ||      C       |      D       |      E       |      E       ||
                                                                                  =========================================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE BLVD. & PARAMOUNT BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 110 | | 130 | 0.06 | | 0.06 | | 0.14 | * | 0.07 | * |
| NT | 2 | 2 | 3400 | 3400 | 769 | -5 | 85 | 0.23 | * | 0.22 | * | 0.25 | | 0.25 | |
| NR | 1 | 1 | 1700 | 1700 | 172 | -50 | 45 | 0.10 | | 0.07 | | 0.10 | | 0.10 | |
| SL | 1 | 2 | 1700 | 3400 | 139 | | 30 | 0.08 | * | 0.08 | * | 0.10 | | 0.05 | |
| ST | 2 | 2 | 3400 | 3400 | 814 | -45 | 205 | 0.24 | | 0.23 | | 0.29 | * | 0.29 | * |
| SR | 1 | 1 | 1700 | 1700 | 150 | 10 | 100 | 0.09 | | 0.09 | | 0.15 | | 0.15 | |
| EL | 1 | 1 | 1700 | 1700 | 150 | 40 | 90 | 0.09 | * | 0.11 | * | 0.16 | * | 0.16 | * |
| ET | 3 | 3 | 5100 | 5100 | 787 | 45 | -310 | 0.17 | | 0.18 | | 0.16 | | 0.10 | |
| ER | 0 | 1 | 0 | 1700 | 66 | | 250 | | | | | | | 0.19 | |
| WL | 1 | 1 | 1700 | 1700 | 124 | -30 | 260 | 0.07 | | 0.06 | | 0.21 | | 0.21 | |
| WT | 3 | 3 | 5100 | 5100 | 1378 | -120 | 170 | 0.29 | * | 0.26 | * | 0.30 | * | 0.28 | * |
| WR | 0 | 1 | 0 | 1700 | 102 | -20 | 0 | | | | | | | 0.05 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.31 | 0.30 | 0.43 | 0.36 |
| EAST/WEST CRITICAL SUMS = | 0.38 | 0.37 | 0.46 | 0.44 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.74 | 0.72 | 0.94 | 0.85 |
| LOS = | C | C | E | D |

ICU SPREADSHEET FILE NAME | FIR&PAR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FIRESTONE BLVD. & PARAMOUNT BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 133 | | 205 | 0.08 | | 0.08 | | 0.20 | * | 0.10 | * |
| NT | 2 | 2 | 3400 | 3400 | 673 | -15 | 65 | 0.20 | * | 0.19 | * | 0.21 | | 0.21 | |
| NR | 1 | 1 | 1700 | 1700 | 146 | 25 | 215 | 0.09 | | 0.10 | | 0.23 | | 0.23 | |
| SL | 1 | 2 | 1700 | 3400 | 219 | 45 | 5 | 0.13 | * | 0.16 | * | 0.16 | | 0.08 | |
| ST | 2 | 2 | 3400 | 3400 | 688 | 5 | 165 | 0.20 | | 0.20 | | 0.25 | * | 0.25 | * |
| SR | 1 | 1 | 1700 | 1700 | 212 | 50 | 50 | 0.12 | | 0.15 | | 0.18 | | 0.18 | |
| EL | 1 | 1 | 1700 | 1700 | 287 | 25 | 60 | 0.17 | * | 0.18 | * | 0.22 | * | 0.22 | * |
| ET | 3 | 3 | 5100 | 5100 | 1423 | 115 | -200 | 0.31 | | 0.33 | | 0.30 | | 0.26 | |
| ER | 0 | 1 | 0 | 1700 | 142 | | 65 | | | | | | | 0.12 | |
| WL | 1 | 1 | 1700 | 1700 | 135 | | -30 | 0.08 | | 0.08 | | 0.06 | | 0.06 | |
| WT | 3 | 3 | 5100 | 5100 | 1086 | 140 | 215 | 0.24 | * | 0.27 | * | 0.32 | * | 0.28 | * |
| WR | 0 | 1 | 0 | 1700 | 119 | 40 | 30 | | | | | | | 0.11 | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.33 | 0.35 | 0.45 | 0.35 |
| EAST/WEST CRITICAL SUMS = | 0.41 | 0.45 | 0.54 | 0.50 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.79 | 0.85 | 1.04 | 0.90 |
| LOS = | C | D | F | D |

ICU SPREADSHEET FILE NAME | FIR&PAR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE BLVD. & DOWNEY AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 127 | | -5 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| NT | 2 | 2 | 3400 | 3400 | 415 | 0 | 45 | 0.16 | * | 0.16 | * | 0.17 | * | 0.17 | * |
| NR | 0 | 0 | 0 | 0 | 129 | | 5 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 102 | | 0 | 0.06 | * | 0.06 | * | 0.06 | * | 0.06 | * |
| ST | 2 | 2 | 3400 | 3400 | 312 | 0 | 30 | 0.10 | | 0.10 | | 0.11 | | 0.11 | |
| SR | 0 | 0 | 0 | 0 | 17 | | 10 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 20 | 0 | 10 | 0.01 | * | 0.01 | | 0.02 | * | 0.02 | * |
| ET | 3 | 3 | 5100 | 5100 | 893 | 30 | -235 | 0.19 | | 0.20 | * | 0.15 | | 0.15 | |
| ER | 0 | 0 | 0 | 0 | 83 | | -10 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 127 | | -10 | 0.07 | | 0.07 | * | 0.07 | | 0.07 | |
| WT | 3 | 3 | 5100 | 5100 | 1517 | -260 | 300 | 0.31 | * | 0.26 | | 0.32 | * | 0.32 | * |
| WR | 0 | 0 | 0 | 0 | 59 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME: FIR&DOW1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.22 | 0.22 | 0.23 | 0.23 |
| EAST/WEST CRITICAL SUMS = | 0.32 | 0.27 | 0.34 | 0.34 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.59 | 0.54 | 0.62 | 0.62 |
| LOS = | A | A | B | B |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FIRESTONE BLVD. & DOWNEY AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 117 | | -30 | 0.07 | | 0.07 | | 0.05 | | 0.05 | |
| NT | 2 | 2 | 3400 | 3400 | 404 | 0 | 40 | 0.15 | * | 0.15 | * | 0.16 | * | 0.16 | * |
| NR | 0 | 0 | 0 | 0 | 119 | | -20 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 167 | | 0 | 0.10 | * | 0.10 | * | 0.10 | * | 0.10 | * |
| ST | 2 | 2 | 3400 | 3400 | 484 | 0 | 60 | 0.15 | | 0.15 | | 0.18 | | 0.18 | |
| SR | 0 | 0 | 0 | 0 | 38 | | 35 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 73 | | 40 | 0.04 | | 0.04 | | 0.07 | | 0.07 | |
| ET | 3 | 3 | 5100 | 5100 | 1398 | 105 | 5 | 0.29 | * | 0.31 | * | 0.31 | * | 0.31 | * |
| ER | 0 | 0 | 0 | 0 | 89 | | -30 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 154 | | -20 | 0.09 | * | 0.09 | * | 0.08 | * | 0.08 | * |
| WT | 3 | 3 | 5100 | 5100 | 999 | 255 | 220 | 0.21 | | 0.26 | | 0.30 | | 0.30 | |
| WR | 0 | 0 | 0 | 0 | 76 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME: FIR&DOW1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.25 | 0.25 | 0.26 | 0.26 |
| EAST/WEST CRITICAL SUMS = | 0.38 | 0.40 | 0.39 | 0.39 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.68 | 0.70 | 0.70 | 0.70 |
| LOS = | B | B | B | B |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: PARAMOUNT BLVD. & STEWART & GRAY RD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 135 | | -5 | 0.08 | | 0.08 | | 0.08 | | 0.08 | |
| NT | 2 | 3 | 3400 | 5100 | 934 | 55 | 170 | 0.30 | * | 0.32 | * | 0.38 | * | 0.25 | * |
| NR | 0 | 0 | 0 | 0 | 93 | | 45 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 81 | | 70 | 0.05 | * | 0.05 | * | 0.09 | * | 0.09 | * |
| ST | 2 | 3 | 3400 | 5100 | 543 | 40 | 630 | 0.19 | | 0.20 | | 0.38 | | 0.25 | |
| SR | 0 | 0 | 0 | 0 | 92 | | -5 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 135 | | -5 | 0.08 | * | 0.08 | * | 0.08 | | 0.08 | |
| ET | 2 | 2 | 3400 | 3400 | 727 | 70 | 5 | 0.24 | | 0.26 | | 0.26 | * | 0.26 | * |
| ER | 0 | 0 | 0 | 0 | 79 | | -5 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 142 | | 225 | 0.08 | | 0.08 | | 0.22 | * | 0.22 | * |
| WT | 2 | 2 | 3400 | 3400 | 778 | 10 | 5 | 0.26 | * | 0.26 | * | 0.27 | | 0.27 | |
| WR | 0 | 0 | 0 | 0 | 102 | | 10 | | | | | | | | |

ICU SPREADSHEET FILE NAME: PAR&STE1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.35 | 0.37 | 0.47 | 0.34 |
| EAST/WEST CRITICAL SUMS = | 0.34 | 0.34 | 0.48 | 0.48 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.74 | 0.76 | 1.00 | 0.87 |
| LOS = | C | C | E | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** PARAMOUNT BLVD. & STEWART & GRAY RD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 164 | | -10 | 0.10 | * | 0.10 | * | 0.09 | | 0.09 | |
| NT | 2 | 3 | 3400 | 5100 | 783 | 110 | 415 | 0.28 | | 0.31 | | 0.49 | * | 0.33 | * |
| NR | 0 | 0 | 0 | 0 | 161 | | 190 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 143 | | 20 | 0.08 | | 0.08 | | 0.10 | * | 0.10 | * |
| ST | 2 | 3 | 3400 | 5100 | 984 | 115 | 115 | 0.32 | * | 0.36 | * | 0.39 | | 0.26 | |
| SR | 0 | 0 | 0 | 0 | 117 | | -10 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 133 | | -5 | 0.08 | | 0.08 | | 0.08 | * | 0.08 | * |
| ET | 2 | 2 | 3400 | 3400 | 894 | 75 | 5 | 0.30 | * | 0.32 | * | 0.32 | | 0.32 | |
| ER | 0 | 0 | 0 | 0 | 114 | | -5 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 131 | | -15 | 0.08 | * | 0.08 | * | 0.07 | | 0.07 | |
| WT | 2 | 2 | 3400 | 3400 | 793 | 105 | 20 | 0.26 | | 0.29 | | 0.32 | * | 0.32 | * |
| WR | 0 | 0 | 0 | 0 | 101 | | 85 | | | | | | | | |

ICU SPREADSHEET FILE NAME | PAR&STE1

| | EXISTING | EXISTING +OTHER | EX+OTHER +PROJECT | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.42 | 0.46 | 0.59 | 0.43 |
| EAST/WEST CRITICAL SUMS = | 0.38 | 0.40 | 0.40 | 0.40 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.85 | 0.91 | 1.04 | 0.88 |
| LOS = | D | E | F | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

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                         INTERSECTION CAPACITY UTILIZATION ANALYSIS

                PROJECT:       DOWNEY GENERAL PLAN
                INTERVAL:      AM PEAK HOUR
                INTERSECTION:  DOWNEY AVE. & STEWART & GRAY RD.
---------------------------------------------------------------------------------------------------------------------
||         ||     |     ||         |         ||         |         |         ||         | |EXISTING | |EX+OTHER | |EX+OTHER | ||
||MOVEMENT ||EXIST| PROP||EXISTING |PROPOSED ||EXISTING |  OTHER  | PROJECT ||EXISTING | |+OTHER   | |+PROJECT | |+PROJECT | ||
||         ||LANES|LANES||CAPACITY |CAPACITY || VOLUME  | VOLUME  | VOLUME  ||   V/C   | |   V/C   | |   V/C   | |V/C-W_IMP| ||
||=========||=====|=====||=========|=========||=========|=========|=========||=========|==|=========|==|=========|==|=========|==||
||   NL    ||    1|    1||     1700|     1700||       71|         |        0||     0.04| |     0.04| |     0.04| |     0.04| ||
||   NT    ||    2|    2||     3400|     3400||      516|      100|       30||     0.17|*|     0.20|*|     0.21|*|     0.21|*||
||   NR    ||    0|    0||        0|        0||       59|         |       -5||         | |         | |         | |         | ||
||   SL    ||    1|    1||     1700|     1700||      102|         |        0||     0.06|*|     0.06|*|     0.06|*|     0.06|*||
||   ST    ||    2|    2||     3400|     3400||      393|        0|      -10||     0.15| |     0.15| |     0.15| |     0.15| ||
||   SR    ||    0|    0||        0|        0||      129|         |        0||         | |         | |         | |         | ||
||   EL    ||    1|    1||     1700|     1700||      111|         |        0||     0.07|*|     0.07|*|     0.07|*|     0.07|*||
||   ET    ||    2|    2||     3400|     3400||      661|       70|      115||     0.21| |     0.23| |     0.26| |     0.26| ||
||   ER    ||    0|    0||        0|        0||       37|         |        0||         | |         | |         | |         | ||
||   WL    ||    1|    1||     1700|     1700||       60|       50|      -15||     0.04| |     0.06| |     0.06| |     0.06| ||
||   WT    ||    2|    2||     3400|     3400||      751|       10|      230||     0.24|*|     0.24|*|     0.31|*|     0.31|*||
||   WR    ||    0|    0||        0|        0||       63|         |        0||         | |         | |         | |         | ||
-------------------------------------------------------------------------------||=============================================||
                       ---------         NORTH/SOUTH CRITICAL SUMS =           ||   0.23    |   0.26    |   0.27    |   0.27    ||
  ICU SPREADSHEET FILE NAME|DOW&STE1 |                                          ||---------------------------------------------||
                       ---------         EAST/WEST CRITICAL SUMS =             ||   0.31    |   0.31    |   0.38    |   0.38    ||
  N = NORTHBOUND, S = SOUTHBOUND                                               ||---------------------------------------------||
  E = EASTBOUND, W = WESTBOUND           CLEARANCE =                           ||   0.05    |   0.05    |   0.05    |   0.05    ||
  L = LEFT, T = THROUGH, R = RIGHT                                             ||=============================================||
  N.S. = NOT SIGNALIZED                  ICU VALUE =                           ||   0.59    |   0.62    |   0.70    |   0.70    ||
  LOS = LEVEL OF SERVICE                                                       ||---------------------------------------------||
  * DENOTES CRITICAL MOVEMENTS           LOS =                                 ||    A      |    B      |    B      |    B      ||
                                                                               ===============================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** DOWNEY AVE. & STEWART & GRAY RD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 75 | | 0 | 0.04 | * | 0.04 | * | 0.04 | * | 0.04 | * |
| NT | 2 | 2 | 3400 | 3400 | 521 | 0 | -60 | 0.17 | | 0.20 | | 0.16 | | 0.16 | |
| NR | 0 | 0 | 0 | 0 | 54 | 90 | -45 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 121 | | 0 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| ST | 2 | 2 | 3400 | 3400 | 742 | 0 | -35 | 0.25 | * | 0.25 | * | 0.24 | * | 0.24 | * |
| SR | 0 | 0 | 0 | 0 | 107 | | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 104 | | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| ET | 2 | 2 | 3400 | 3400 | 1178 | 75 | 220 | 0.37 | * | 0.39 | * | 0.46 | * | 0.46 | * |
| ER | 0 | 0 | 0 | 0 | 89 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 78 | 150 | -40 | 0.05 | * | 0.13 | * | 0.11 | * | 0.11 | * |
| WT | 2 | 2 | 3400 | 3400 | 857 | 100 | 90 | 0.30 | | 0.33 | | 0.35 | | 0.35 | |
| WR | 0 | 0 | 0 | 0 | 156 | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME: DOW&STE1

| | EXISTING | EXISTING +OTHER | EX+OTHER +PROJECT | EX+OTHER +PROJECT W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.29 | 0.29 | 0.28 | 0.28 |
| EAST/WEST CRITICAL SUMS = | 0.42 | 0.52 | 0.57 | 0.57 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.76 | 0.86 | 0.90 | 0.90 |
| LOS = | C | D | D | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: IMPERIAL HWY & OLD RIVER SCHOOL

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 97 | | 0 | | | | | | | | |
| NT | 3 | 3 | 5100 | 5100 | 18 | | 0 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| NR | 0 | 0 | 0 | 0 | 16 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 127 | | 20 | 0.07 | * | 0.07 | * | 0.09 | * | 0.09 | * |
| ST | 2 | 2 | 3400 | 3400 | 53 | 0 | -30 | 0.09 | | 0.09 | | 0.08 | | 0.08 | |
| SR | 0 | 0 | 0 | 0 | 248 | | -5 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 310 | | -10 | 0.18 | * | 0.18 | * | 0.18 | * | 0.09 | * |
| ET | 3 | 3 | 5100 | 5100 | 917 | -120 | -110 | 0.18 | | 0.16 | | 0.13 | | 0.13 | |
| ER | 1 | 1 | 1700 | 1700 | 131 | | 0 | 0.08 | | 0.08 | | 0.08 | | 0.08 | |
| WL | 1 | 1 | 1700 | 1700 | 274 | | 0 | 0.16 | | 0.16 | | 0.16 | | 0.16 | |
| WT | 3 | 3 | 5100 | 5100 | 1032 | -215 | 155 | 0.23 | * | 0.19 | * | 0.22 | * | 0.22 | * |
| WR | 0 | 0 | 0 | 0 | 131 | | -5 | | | | | | | | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.10 | 0.10 | 0.12 | 0.12 |
| EAST/WEST CRITICAL SUMS = | 0.41 | 0.37 | 0.40 | 0.31 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.56 | 0.52 | 0.57 | 0.48 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME: IMP&OLD1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: IMPERIAL HWY & OLD RIVER SCHOOL

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 187 | | 0 | | | | | | | | |
| NT | 3 | 3 | 5100 | 5100 | 145 | 0 | -85 | 0.07 | * | 0.07 | * | 0.05 | * | 0.05 | * |
| NR | 0 | 0 | 0 | 0 | 29 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 269 | | -10 | 0.16 | * | 0.16 | * | 0.15 | * | 0.15 | * |
| ST | 2 | 2 | 3400 | 3400 | 24 | | 105 | 0.10 | | 0.10 | | 0.12 | | 0.12 | |
| SR | 0 | 0 | 0 | 0 | 325 | | -35 | | | | | | | | |
| EL | 1 | 2 | 1700 | 3400 | 506 | | -35 | 0.30 | * | 0.30 | * | 0.28 | * | 0.14 | * |
| ET | 3 | 3 | 5100 | 5100 | 1401 | -120 | -420 | 0.27 | | 0.25 | | 0.17 | | 0.17 | |
| ER | 1 | 1 | 1700 | 1700 | 47 | | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| WL | 1 | 1 | 1700 | 1700 | 160 | | 0 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| WT | 3 | 3 | 5100 | 5100 | 1260 | 175 | 520 | 0.28 | * | 0.32 | * | 0.42 | * | 0.42 | * |
| WR | 0 | 0 | 0 | 0 | 184 | | 10 | | | | | | | | |

ICU SPREADSHEET FILE NAME | IMP&OLD1

| | EXISTING V/C | EXISTING +OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.23 | 0.23 | 0.20 | 0.20 |
| EAST/WEST CRITICAL SUMS = | 0.58 | 0.62 | 0.70 | 0.56 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.86 | 0.90 | 0.95 | 0.81 |
| LOS = | D | D | E | D |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

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                    INTERSECTION CAPACITY UTILIZATION ANALYSIS


            PROJECT:       DOWNEY GENERAL PLAN
            INTERVAL:      AM PEAK HOUR
            INTERSECTION:  IMPERIAL HWY & PARAMOUNT BLVD.
-----------------------------------------------------------------------------------------------------------------------------------
||          ||      |      ||          |          ||          |          |          ||          |  |EXISTING  |  |EX+OTHER  |  |EX+OTHER  |  ||
||MOVEMENT  ||EXIST | PROP ||EXISTING  |PROPOSED  ||EXISTING  |  OTHER   | PROJECT  ||EXISTING  |  |+OTHER    |  |+PROJECT  |  |+PROJECT  |  ||
||          ||LANES |LANES ||CAPACITY  |CAPACITY  || VOLUME   |  VOLUME  |  VOLUME  ||   V/C    |  |   V/C    |  |   V/C    |  |V/C-W_IMP |  ||
||==========||======|======||==========|==========||==========|==========|==========||==========|==|==========|==|==========|==|==========|==||
||   NL     ||    2 |    2 ||     3400 |     3400 ||      143 |          |       -5 ||     0.04 |  |     0.04 |  |     0.04 |  |     0.04 |  ||
||   NT     ||    3 |    3 ||     5100 |     5100 ||      618 |       40 |      310 ||     0.14 |* |     0.14 |* |     0.21 |* |     0.21 |* ||
||   NR     ||    0 |    0 ||        0 |        0 ||       77 |          |        5 ||          |  |          |  |          |  |          |  ||
||   SL     ||    1 |    1 ||     1700 |     1700 ||      124 |          |       60 ||     0.07 |* |     0.07 |* |     0.11 |* |     0.11 |* ||
||   ST     ||    3 |    3 ||     5100 |     5100 ||      620 |       10 |       35 ||     0.15 |  |     0.15 |  |     0.15 |  |     0.15 |  ||
||   SR     ||    0 |    0 ||        0 |        0 ||      158 |      -40 |      -15 ||          |  |          |  |          |  |          |  ||
||   EL     ||    2 |    2 ||     3400 |     3400 ||      127 |      -40 |      240 ||     0.04 |* |     0.03 |  |     0.10 |* |     0.10 |* ||
||   ET     ||    3 |    3 ||     5100 |     5100 ||      995 |     -105 |     -530 ||     0.22 |  |     0.20 |* |     0.08 |  |     0.08 |  ||
||   ER     ||    0 |    0 ||        0 |        0 ||      112 |          |      -45 ||          |  |          |  |          |  |          |  ||
||   WL     ||    1 |    1 ||     1700 |     1700 ||      144 |          |       -5 ||     0.08 |  |     0.08 |* |     0.08 |  |     0.08 |  ||
||   WT     ||    3 |    3 ||     5100 |     5100 ||     1345 |     -160 |        5 ||     0.28 |* |     0.25 |  |     0.31 |* |     0.31 |* ||
||   WR     ||    0 |    0 ||        0 |        0 ||       75 |          |      295 ||          |  |          |  |          |  |          |  ||
--------------------------------------------------------------------------------------||=================================================||
                                     ---------     NORTH/SOUTH CRITICAL SUMS =        ||     0.21     |     0.21     |     0.32     |     0.32     ||
 ICU SPREADSHEET FILE NAME|IMP&PAR1 |                                                 ||-------------------------------------------------||
                                     ---------     EAST/WEST CRITICAL SUMS =          ||     0.32     |     0.28     |     0.41     |     0.41     ||
 N = NORTHBOUND, S = SOUTHBOUND                                                       ||-------------------------------------------------||
 E = EASTBOUND, W = WESTBOUND                      CLEARANCE =                        ||     0.05     |     0.05     |     0.05     |     0.05     ||
 L = LEFT, T = THROUGH, R = RIGHT                                                     ||=================================================||
 N.S. = NOT SIGNALIZED                             ICU VALUE =                        ||     0.58     |     0.54     |     0.78     |     0.78     ||
 LOS = LEVEL OF SERVICE                                                               ||-------------------------------------------------||
 * DENOTES CRITICAL MOVEMENTS                      LOS =                              ||      A       |      A       |      C       |      C       ||
                                                                                      ===================================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: IMPERIAL HWY & PARAMOUNT BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 2 | 2 | 3400 | 3400 | 157 | | 20 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| NT | 3 | 3 | 5100 | 5100 | 497 | 25 | -100 | 0.11 | * | 0.12 | * | 0.10 | * | 0.10 | * |
| NR | 0 | 0 | 0 | 0 | 81 | | -15 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 193 | | 235 | 0.11 | * | 0.11 | * | 0.25 | * | 0.25 | * |
| ST | 3 | 3 | 5100 | 5100 | 657 | 50 | 200 | 0.15 | | 0.16 | | 0.29 | | 0.29 | |
| SR | 0 | 0 | 0 | 0 | 118 | 15 | 420 | | | | | | | | |
| EL | 2 | 2 | 3400 | 3400 | 256 | 15 | -110 | 0.08 | | 0.08 | | 0.05 | * | 0.05 | * |
| ET | 3 | 3 | 5100 | 5100 | 1393 | -20 | -475 | 0.30 | * | 0.30 | * | 0.20 | | 0.20 | |
| ER | 0 | 0 | 0 | 0 | 132 | | -15 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 121 | | -15 | 0.07 | * | 0.07 | * | 0.06 | | 0.06 | |
| WT | 3 | 3 | 5100 | 5100 | 1063 | -195 | 420 | 0.24 | | 0.20 | | 0.28 | * | 0.28 | * |
| WR | 0 | 0 | 0 | 0 | 165 | | -40 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.22 | 0.23 | 0.35 | 0.35 |
| EAST/WEST CRITICAL SUMS = | 0.37 | 0.37 | 0.33 | 0.33 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.64 | 0.65 | 0.73 | 0.73 |
| LOS = | B | B | C | C |

ICU SPREADSHEET FILE NAME | IMP&PAR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: DOWNEY AVE. & IMPERIAL HWY

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 110 | | 0 | 0.06 | * | 0.06 | | 0.06 | | 0.06 | |
| NT | 2 | 2 | 3400 | 3400 | 429 | 135 | 5 | 0.15 | | 0.19 | * | 0.19 | * | 0.19 | * |
| NR | 0 | 0 | 0 | 0 | 89 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 97 | | 5 | 0.06 | | 0.06 | * | 0.06 | * | 0.06 | * |
| ST | 2 | 2 | 3400 | 3400 | 379 | 30 | 5 | 0.15 | * | 0.16 | | 0.16 | | 0.16 | |
| SR | 0 | 0 | 0 | 0 | 121 | 20 | -5 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 68 | 90 | -5 | 0.04 | * | 0.09 | * | 0.09 | * | 0.09 | * |
| ET | 3 | 3 | 5100 | 5100 | 1222 | -180 | -470 | 0.25 | | 0.21 | | 0.12 | | 0.12 | |
| ER | 0 | 0 | 0 | 0 | 50 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 106 | | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| WT | 3 | 3 | 5100 | 5100 | 1711 | -355 | 300 | 0.35 | * | 0.28 | * | 0.34 | * | 0.34 | * |
| WR | 0 | 0 | 0 | 0 | 92 | | -10 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.21 | 0.25 | 0.25 | 0.25 |
| EAST/WEST CRITICAL SUMS = | 0.39 | 0.37 | 0.43 | 0.43 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.65 | 0.67 | 0.73 | 0.73 |
| LOS = | B | B | C | C |

ICU SPREADSHEET FILE NAME DOW&IMP1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: DOWNEY AVE. & IMPERIAL HWY

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 62 | | 0 | 0.04 | | 0.04 | * | 0.04 | * | 0.04 | * |
| NT | 2 | 2 | 3400 | 3400 | 547 | 55 | 10 | 0.18 | * | 0.19 | | 0.19 | | 0.19 | |
| NR | 0 | 0 | 0 | 0 | 49 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 103 | | -40 | 0.06 | * | 0.06 | | 0.04 | | 0.04 | |
| ST | 2 | 2 | 3400 | 3400 | 479 | 115 | 5 | 0.17 | | 0.23 | * | 0.22 | * | 0.22 | * |
| SR | 0 | 0 | 0 | 0 | 92 | 80 | -25 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 108 | 40 | -25 | 0.06 | | 0.09 | | 0.07 | * | 0.07 | * |
| ET | 3 | 3 | 5100 | 5100 | 1801 | -260 | -240 | 0.37 | * | 0.32 | * | 0.27 | | 0.27 | |
| ER | 0 | 0 | 0 | 0 | 96 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 96 | | 0 | 0.06 | * | 0.06 | * | 0.06 | | 0.06 | |
| WT | 3 | 3 | 5100 | 5100 | 1239 | -285 | 375 | 0.25 | | 0.20 | | 0.27 | * | 0.27 | * |
| WR | 0 | 0 | 0 | 0 | 61 | | -30 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.24 | 0.27 | 0.26 | 0.26 |
| EAST/WEST CRITICAL SUMS = | 0.43 | 0.38 | 0.34 | 0.34 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.72 | 0.70 | 0.65 | 0.65 |
| LOS = | C | B | B | B |

ICU SPREADSHEET FILE NAME: DOW&IMP1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** IMPERIAL HWY & LAKEWOOD BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 169 | | 5 | 0.10 | | 0.10 | | 0.10 | | 0.10 | |
| NT | 3 | 3 | 5100 | 5100 | 675 | 165 | 245 | 0.17 | * | 0.20 | * | 0.20 | * | 0.20 | * |
| NR | 0 | 0 | 0 | 0 | 185 | | -260 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 141 | | 20 | 0.08 | * | 0.08 | * | 0.09 | * | 0.09 | * |
| ST | 3 | 3 | 5100 | 5100 | 447 | 30 | 10 | 0.12 | | 0.12 | | 0.13 | | 0.13 | |
| SR | 0 | 0 | 0 | 0 | 147 | -15 | 35 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 75 | -25 | -220 | 0.04 | * | 0.03 | * | -0.10 | | -0.10 | |
| ET | 3 | 3 | 5100 | 5100 | 948 | -130 | -280 | 0.20 | | 0.17 | | 0.12 | * | 0.12 | * |
| ER | 0 | 0 | 0 | 0 | 74 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 73 | | 20 | 0.04 | | 0.04 | | 0.05 | * | 0.05 | * |
| WT | 3 | 3 | 5100 | 5100 | 1083 | -215 | 210 | 0.23 | * | 0.19 | * | 0.25 | | 0.25 | |
| WR | 0 | 0 | 0 | 0 | 101 | | 95 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.25 | 0.28 | 0.29 | 0.29 |
| EAST/WEST CRITICAL SUMS = | 0.27 | 0.22 | 0.17 | 0.17 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.57 | 0.55 | 0.51 | 0.51 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | IMP&LAK1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: IMPERIAL HWY & LAKEWOOD BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 130 | | 5 | 0.08 | * | 0.08 | * | 0.08 | * | 0.08 | * |
| NT | 3 | 3 | 5100 | 5100 | 512 | 150 | 30 | 0.12 | | 0.15 | | 0.11 | | 0.11 | |
| NR | 0 | 0 | 0 | 0 | 105 | | -215 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 89 | | 115 | 0.05 | | 0.05 | | 0.12 | | 0.12 | |
| ST | 3 | 3 | 5100 | 5100 | 603 | 230 | 270 | 0.14 | * | 0.19 | * | 0.25 | * | 0.25 | * |
| SR | 0 | 0 | 0 | 0 | 126 | | 55 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 136 | 10 | -210 | 0.08 | | 0.09 | | -0.04 | | -0.04 | |
| ET | 3 | 3 | 4800 | 5100 | 1385 | -220 | -90 | 0.31 | * | 0.27 | * | 0.25 | * | 0.23 | * |
| ER | 0 | 0 | 0 | 0 | 118 | | 5 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 178 | | 50 | 0.10 | * | 0.10 | * | 0.13 | * | 0.13 | * |
| WT | 3 | 3 | 5100 | 5100 | 1059 | -230 | 290 | 0.22 | | 0.17 | | 0.24 | | 0.24 | |
| WR | 0 | 0 | 0 | 0 | 60 | | 25 | | | | | | | | |

ICU SPREADSHEET FILE NAME: IMP&LAK1

| | EXISTING V/C | EXISTING +OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.22 | 0.27 | 0.33 | 0.33 |
| EAST/WEST CRITICAL SUMS = | 0.41 | 0.37 | 0.38 | 0.36 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.68 | 0.69 | 0.76 | 0.74 |
| LOS = | B | B | C | C |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: IMPERIAL HWY & BELLFLOWER BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 7600 | 1700 | 102 | | -310 | 0.01 | | 0.01 | | -0.03 | | -0.12 | |
| NT | 2 | 2 | 3400 | 3400 | 500 | 30 | 10 | 0.16 | * | 0.17 | * | 0.18 | * | 0.18 | * |
| NR | 0 | 0 | 0 | 0 | 41 | | 45 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 75 | | 35 | 0.04 | * | 0.04 | * | 0.06 | * | 0.06 | * |
| ST | 2 | 2 | 3400 | 3400 | 221 | 15 | 10 | 0.11 | | 0.12 | | 0.13 | | 0.13 | |
| SR | 0 | 0 | 0 | 0 | 166 | | 15 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 65 | | 15 | 0.04 | * | 0.04 | * | 0.05 | * | 0.05 | * |
| ET | 3 | 3 | 5100 | 5100 | 959 | -170 | 25 | 0.19 | | 0.16 | | 0.17 | | 0.17 | |
| ER | 0 | 0 | 0 | 0 | 31 | | 35 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 106 | | 15 | 0.06 | | 0.06 | | 0.07 | | 0.07 | |
| WT | 3 | 3 | 5100 | 5100 | 1644 | -280 | -10 | 0.38 | * | 0.33 | * | 0.24 | * | 0.24 | * |
| WR | 0 | 0 | 0 | 0 | 296 | | -445 | | | | | | | | |

ICU SPREADSHEET FILE NAME | IMP&BEL1

| | EXISTING V/C | EXISTING +OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.20 | 0.21 | 0.24 | 0.24 |
| EAST/WEST CRITICAL SUMS = | 0.42 | 0.37 | 0.29 | 0.29 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.67 | 0.63 | 0.58 | 0.58 |
| LOS = | B | B | A | A |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: IMPERIAL HWY & BELLFLOWER BLVD.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 89 | | -215 | 0.05 | | 0.05 | | -0.07 | | -0.07 | |
| NT | 2 | 2 | 3400 | 3400 | 278 | 15 | -5 | 0.11 | * | 0.11 | * | 0.12 | * | 0.12 | * |
| NR | 0 | 0 | 0 | 0 | 92 | | 35 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 297 | | 35 | 0.17 | * | 0.17 | * | 0.20 | * | 0.20 | * |
| ST | 2 | 2 | 3400 | 3400 | 470 | 30 | 75 | 0.18 | | 0.18 | | 0.24 | | 0.24 | |
| SR | 0 | 0 | 0 | 0 | 128 | | 100 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 91 | | 5 | 0.05 | | 0.05 | | 0.06 | | 0.06 | |
| ET | | 3 | 5100 | 5100 | 1373 | -275 | 240 | 0.28 | * | 0.23 | * | 0.27 | * | 0.27 | * |
| ER | 0 | 0 | 0 | 0 | 71 | | -40 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 98 | | 125 | 0.06 | * | 0.06 | * | 0.13 | * | 0.13 | * |
| WT | 3 | 3 | 5100 | 5100 | 1015 | -185 | 70 | 0.22 | | 0.19 | | 0.15 | | 0.15 | |
| WR | 0 | 0 | 0 | 0 | 114 | | -255 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.28 | 0.28 | 0.32 | 0.32 |
| EAST/WEST CRITICAL SUMS = | 0.34 | 0.29 | 0.40 | 0.40 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.67 | 0.62 | 0.77 | 0.77 |
| LOS = | B | B | C | C |

ICU SPREADSHEET FILE NAME | IMP&BEL1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS - LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** IMPERIAL HWY & WOODRUFF AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 124 | | 0 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| NT | 2 | 2 | 3400 | 3400 | 609 | -10 | 25 | 0.25 | * | 0.25 | * | 0.25 | * | 0.25 | * |
| NR | 0 | 0 | 0 | 0 | 234 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 97 | | 0 | 0.06 | * | 0.06 | * | 0.06 | * | 0.06 | * |
| ST | 2 | 2 | 3400 | 3400 | 302 | -10 | 10 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| SR | 1 | 1 | 1700 | 1700 | 180 | | 20 | 0.11 | | 0.11 | | 0.12 | | 0.12 | |
| EL | 1 | 1 | 1700 | 1700 | 94 | | 80 | 0.06 | * | 0.06 | * | 0.10 | * | 0.10 | * |
| ET | 3 | 3 | 5100 | 5100 | 932 | -175 | 45 | 0.20 | | 0.16 | | 0.17 | | 0.17 | |
| ER | 0 | 0 | 0 | 0 | 70 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 120 | | 0 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| WT | 3 | 3 | 5100 | 5100 | 1531 | -215 | -455 | 0.35 | * | 0.31 | * | 0.22 | * | 0.22 | * |
| WR | 0 | 0 | 0 | 0 | 250 | | 15 | | | | | | | | |

| | EXISTING V/C | EXISTING +OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.31 | 0.31 | 0.31 | 0.31 |
| EAST/WEST CRITICAL SUMS = | 0.41 | 0.37 | 0.32 | 0.32 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.77 | 0.73 | 0.68 | 0.68 |
| LOS = | C | C | B | B |

ICU SPREADSHEET FILE NAME | IMP&WOO1 |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** IMPERIAL HWY & WOODRUFF AVE.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 91 | | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| NT | 2 | 2 | 3400 | 3400 | 496 | 65 | 15 | 0.23 | * | 0.25 | * | 0.26 | * | 0.26 | * |
| NR | 0 | 0 | 0 | 0 | 299 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 216 | | 30 | 0.13 | * | 0.13 | * | 0.14 | * | 0.14 | * |
| ST | 2 | 2 | 3400 | 3400 | 690 | 50 | 60 | 0.20 | | 0.22 | | 0.24 | | 0.24 | |
| SR | 1 | 1 | 1700 | 1700 | 129 | | 180 | 0.08 | | 0.08 | | 0.18 | | 0.18 | |
| EL | 1 | 1 | 1700 | 1700 | 98 | | 50 | 0.06 | | 0.06 | | 0.09 | | 0.09 | |
| ET | 3 | 3 | 5100 | 5100 | 2006 | -405 | 305 | 0.41 | * | 0.33 | * | 0.39 | * | 0.39 | * |
| ER | 0 | 0 | 0 | 0 | 93 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 147 | | 0 | 0.09 | * | 0.09 | * | 0.09 | * | 0.09 | * |
| WT | 3 | 3 | 5100 | 5100 | 1038 | -130 | -385 | 0.24 | | 0.22 | | 0.15 | | 0.15 | |
| WR | 0 | 0 | 0 | 0 | 211 | | 10 | | | | | | | | |

ICU SPREADSHEET FILE NAME: IMP&WOO1

| | EXISTING V/C | EXISTING + OTHER V/C | EX+OTHER +PROJECT V/C | EX+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.36 | 0.38 | 0.40 | 0.40 |
| EAST/WEST CRITICAL SUMS = | 0.50 | 0.42 | 0.48 | 0.48 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.91 | 0.85 | 0.93 | 0.93 |
| LOS = | E | D | E | E |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: PARAMOUNT BLVD. & GARDENDALE ST.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING +OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 146 | | -40 | 0.09 | | 0.09 | | 0.06 | | 0.06 | |
| NT | 2 | 2 | 3400 | 3400 | 719 | 110 | 295 | 0.23 | * | 0.26 | * | 0.35 | * | 0.35 | * |
| NR | 0 | 0 | 0 | 0 | 68 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 111 | | -40 | 0.07 | * | 0.07 | * | 0.04 | * | 0.04 | * |
| ST | 2 | 2 | 3400 | 3400 | 518 | 55 | 30 | 0.15 | | 0.17 | | 0.18 | | 0.18 | |
| SR | 1 | 1 | 1700 | 1700 | 97 | | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| EL | 1 | 1 | 1700 | 1700 | 85 | | 0 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| ET | 2 | 2 | 3400 | 3400 | 390 | 0 | 0 | 0.11 | | 0.11 | | 0.11 | | 0.11 | |
| ER | 1 | 1 | 1700 | 1700 | 69 | | -35 | 0.04 | | 0.04 | | 0.02 | | 0.02 | |
| WL | 1 | 1 | 1700 | 1700 | 102 | | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| WT | 2 | 2 | 3400 | 3400 | 658 | 0 | 0 | 0.19 | * | 0.19 | * | 0.19 | * | 0.19 | * |
| WR | 1 | 1 | 1700 | 1700 | 191 | | 5 | 0.11 | | 0.11 | | 0.12 | | 0.12 | |

ICU SPREADSHEET FILE NAME: PAR&GAR1

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.30 | 0.33 | 0.39 | 0.39 |
| EAST/WEST CRITICAL SUMS = | 0.24 | 0.24 | 0.24 | 0.24 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.59 | 0.62 | 0.68 | 0.68 |
| LOS = | A | B | B | B |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: PARAMOUNT BLVD. & GARDENDALE ST.

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX+OTHER +PROJECT V/C | | EX+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 108 | | 55 | 0.06 | | 0.06 | | 0.10 | | 0.10 | |
| NT | 2 | 2 | 3400 | 3400 | 1133 | 145 | -80 | 0.37 | * | 0.41 | * | 0.39 | * | 0.39 | * |
| NR | 0 | 0 | 0 | 0 | 123 | | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 240 | | -15 | 0.14 | * | 0.14 | * | 0.13 | * | 0.13 | * |
| ST | 2 | 2 | 3400 | 3400 | 1056 | 180 | 185 | 0.31 | | 0.36 | | 0.42 | | 0.42 | |
| SR | 1 | 1 | 1700 | 1700 | 80 | | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| EL | 1 | 1 | 1700 | 1700 | 160 | | 0 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| ET | 2 | 2 | 3400 | 3400 | 838 | 0 | 0 | 0.25 | * | 0.25 | * | 0.25 | * | 0.25 | * |
| ER | 1 | 1 | 1700 | 1700 | 91 | | -45 | 0.05 | | 0.05 | | 0.03 | | 0.03 | |
| WL | 1 | 1 | 1700 | 1700 | 131 | | 0 | 0.08 | * | 0.08 | * | 0.08 | * | 0.08 | * |
| WT | 2 | 2 | 3400 | 3400 | 492 | 0 | 0 | 0.14 | | 0.14 | | 0.14 | | 0.14 | |
| WR | 1 | 1 | 1700 | 1700 | 152 | | -20 | 0.09 | | 0.09 | | 0.08 | | 0.08 | |

| | EXISTING | EXISTING + OTHER | EX+OTHER +PROJECT | EX+OTHER +PROJECT W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.51 | 0.55 | 0.52 | 0.52 |
| EAST/WEST CRITICAL SUMS = | 0.33 | 0.33 | 0.33 | 0.33 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.89 | 0.93 | 0.90 | 0.90 |
| LOS = | D | E | D | D |

ICU SPREADSHEET FILE NAME: PAR&GAR1

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE BOULEVARD & BROOKSHIRE AVENUE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 70 | 30 | 1 | 0.04 | | 0.06 | * | 0.06 | * | 0.06 | * |
| NT | 2 | 3 | 3400 | 5100 | 349 | 55 | 1 | 0.11 | * | 0.14 | | 0.14 | | 0.09 | |
| NR | 0 | 0 | 0 | 0 | 37 | 35 | -10 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 85 | 0 | 1 | 0.05 | * | 0.05 | | 0.05 | | 0.05 | |
| ST | 2 | 3 | 3400 | 5100 | 330 | 60 | 0 | 0.12 | | 0.14 | * | 0.14 | * | 0.09 | * |
| SR | 0 | 0 | 0 | 0 | 80 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 190 | 0 | 0 | 0.11 | | 0.11 | | 0.11 | | 0.11 | |
| ET | 3 | 4 | 5100 | 6800 | 1074 | 75 | -105 | 0.23 | * | 0.27 | * | 0.25 | * | 0.19 | * |
| ER | 0 | 0 | 0 | 0 | 95 | 140 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 385 | 150 | -5 | 0.23 | * | 0.31 | * | 0.31 | * | 0.31 | * |
| WT | 3 | 4 | 5100 | 6800 | 1391 | 65 | -60 | 0.34 | | 0.35 | | 0.34 | | 0.26 | |
| WR | 0 | 0 | 0 | 0 | 342 | 0 | 2 | | | | | | | | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX.+OTHER +PROJECT V/C | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.16 | 0.20 | 0.20 | 0.15 |
| EAST/WEST CRITICAL SUMS = | 0.46 | 0.58 | 0.56 | 0.50 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.67 | 0.83 | 0.81 | 0.70 |
| LOS = | B | D | D | B |

ICU SPREADSHEET FILE NAME: F&B

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FIRESTONE BOULEVARD & BROOKSHIRE AVENUE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 114 | 125 | 5 | 0.07 | * | 0.14 | * | 0.14 | * | 0.14 | * |
| NT | 2 | 3 | 3400 | 5100 | 578 | 70 | 5 | 0.19 | | 0.25 | | 0.25 | | 0.17 | |
| NR | 0 | 0 | 0 | 0 | 61 | 135 | 10 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 146 | 0 | 5 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| ST | 2 | 3 | 3400 | 5100 | 568 | 75 | 0 | 0.21 | * | 0.23 | * | 0.23 | * | 0.15 | * |
| SR | 0 | 0 | 0 | 0 | 138 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 290 | 0 | 0 | 0.17 | | 0.17 | | 0.17 | | 0.17 | |
| ET | 3 | 4 | 5100 | 6800 | 1635 | 200 | 40 | 0.35 | * | 0.40 | * | 0.41 | * | 0.31 | * |
| ER | 0 | 0 | 0 | 0 | 145 | 60 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 250 | 65 | 15 | 0.15 | * | 0.19 | * | 0.19 | * | 0.19 | * |
| WT | 3 | 4 | 5100 | 6800 | 904 | 210 | -20 | 0.22 | | 0.26 | | 0.26 | | 0.20 | |
| WR | 0 | 0 | 0 | 0 | 223 | 0 | 15 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.28 | 0.37 | 0.37 | 0.29 |
| EAST/WEST CRITICAL SUMS = | 0.50 | 0.59 | 0.60 | 0.50 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.83 | 1.01 | 1.02 | 0.84 |
| LOS = | D | F | F | D |

ICU SPREADSHEET FILE NAME | F&B |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 213 | 30 | -20 | 0.13 | | 0.14 | | 0.13 | | 0.07 | |
| NT | 2 | 3 | 3400 | 5100 | 1079 | 80 | -35 | 0.32 | * | 0.34 | * | 0.33 | * | 0.22 | * |
| NR | 1 | 1 | 1700 | 1700 | 114 | 0 | 0 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| SL | 1 | 2 | 1700 | 3400 | 211 | 20 | -110 | 0.12 | * | 0.14 | * | 0.07 | * | 0.04 | * |
| ST | 2 | 3 | 3400 | 5100 | 818 | 15 | -10 | 0.24 | | 0.25 | | 0.24 | | 0.16 | |
| SR | 1 | 1 | 1700 | 1700 | 198 | 115 | -20 | 0.12 | | 0.18 | | 0.17 | | 0.17 | |
| EL | 1 | 2 | 1700 | 3400 | 203 | 70 | -25 | 0.12 | | 0.16 | | 0.15 | * | 0.07 | * |
| ET | 3 | 4 | 5100 | 6800 | 1145 | 60 | -105 | 0.24 | * | 0.26 | * | 0.24 | | 0.16 | |
| ER | 0 | 1 | 0 | 1700 | 101 | 10 | 0 | | | | | | | 0.07 | |
| WL | 1 | 2 | 1700 | 3400 | 418 | 0 | -30 | 0.25 | * | 0.25 | * | 0.23 | | 0.11 | |
| WT | 3 | 4 | 5100 | 6800 | 1508 | 210 | -10 | 0.30 | | 0.34 | | 0.33 | * | 0.25 | * |
| WR | 1 | 1 | 1700 | 1700 | 371 | 50 | -45 | 0.22 | | 0.25 | | 0.22 | | 0.22 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.44 | 0.48 | 0.40 | 0.26 |
| EAST/WEST CRITICAL SUMS = | 0.49 | 0.51 | 0.48 | 0.32 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.98 | 1.04 | 0.93 | 0.63 |
| LOS = | E | F | E | B |

ICU SPREADSHEET FILE NAME | L&F

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 2 | 1700 | 3400 | 308 | 35 | 25 | 0.18 | | 0.20 | | 0.22 | | 0.11 | |
| NT | 2 | 3 | 3400 | 5100 | 1559 | 50 | -10 | 0.46 | * | 0.47 | * | 0.47 | * | 0.31 | * |
| NR | 1 | 1 | 1700 | 1700 | 165 | 0 | 0 | 0.10 | | 0.10 | | 0.10 | | 0.10 | |
| SL | 1 | 2 | 1700 | 3400 | 226 | 100 | 10 | 0.13 | * | 0.19 | * | 0.20 | * | 0.10 | * |
| ST | 2 | 3 | 3400 | 5100 | 854 | 105 | 30 | 0.25 | | 0.28 | | 0.29 | | 0.19 | |
| SR | 1 | 1 | 1700 | 1700 | 212 | 120 | 30 | 0.12 | | 0.20 | | 0.21 | | 0.21 | |
| EL | 1 | 2 | 1700 | 3400 | 256 | 140 | 15 | 0.15 | | 0.23 | | 0.24 | | 0.12 | |
| ET | 3 | 4 | 5100 | 6800 | 1474 | 270 | 30 | 0.31 | * | 0.38 | * | 0.38 | * | 0.26 | * |
| ER | 0 | 1 | 0 | 1700 | 129 | 50 | 0 | | | | | | | 0.11 | |
| WL | 1 | 2 | 1700 | 3400 | 231 | 0 | -15 | 0.14 | * | 0.14 | * | 0.13 | * | 0.06 | * |
| WT | 3 | 4 | 5100 | 6800 | 847 | 180 | 30 | 0.17 | | 0.20 | | 0.21 | | 0.16 | |
| WR | 1 | 1 | 1700 | 1700 | 206 | 75 | 25 | 0.12 | | 0.17 | | 0.18 | | 0.18 | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX.+OTHER +PROJECT V/C | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.59 | 0.66 | 0.67 | 0.41 |
| EAST/WEST CRITICAL SUMS = | 0.45 | 0.52 | 0.51 | 0.32 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 1.09 | 1.23 | 1.23 | 0.78 |
| LOS = | F | F | F | C |

ICU SPREADSHEET FILE NAME | L&F

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE BOULEVARD & STONEWOOD CENTER

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | 0 | -75 | | * | | * | | * | | * |
| NT | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | -0.04 | | -0.04 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| SL | 0 | 0 | 0 | 0 | 23 | 0 | -5 | | | | | | | | |
| ST | 2 | 2 | 3400 | 3400 | 0 | 0 | 0 | 0.01 | * | 0.01 | * | 0.01 | * | 0.01 | * |
| SR | 0 | 0 | 0 | 0 | 5 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 51 | 0 | 0 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| ET | 3 | 3 | 5100 | 5100 | 954 | 83 | -60 | 0.19 | | 0.20 | | 0.17 | | 0.17 | |
| ER | 0 | 0 | 0 | 0 | 2 | 0 | -105 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 43 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| WT | 3 | 3 | 5100 | 5100 | 1908 | 259 | -15 | 0.37 | * | 0.42 | * | 0.42 | * | 0.42 | * |
| WR | 1 | 1 | 1700 | 1700 | | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.01 | 0.01 | 0.01 | 0.01 |
| EAST/WEST CRITICAL SUMS = | 0.40 | 0.45 | 0.45 | 0.45 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.46 | 0.51 | 0.51 | 0.51 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | F&S

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** FIRESTONE BOULEVARD & STONEWOOD CENTER

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | 0 | -45 | | * | | * | | * | | * |
| NT | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | -0.03 | | -0.03 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| SL | 0 | 0 | 0 | 0 | 138 | 0 | 10 | | | | | | | | |
| ST | 2 | 2 | 3400 | 3400 | 0 | 0 | 0 | 0.07 | * | 0.07 | * | 0.07 | * | 0.07 | * |
| SR | 0 | 0 | 0 | 0 | 100 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 111 | 0 | 0 | 0.07 | * | 0.07 | * | 0.07 | * | 0.07 | * |
| ET | 3 | 3 | 5100 | 5100 | 1270 | 372 | 50 | 0.25 | | 0.32 | | 0.34 | | 0.34 | |
| ER | 0 | 0 | 0 | 0 | 2 | 0 | 15 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| WT | 3 | 3 | 5100 | 5100 | 1679 | 252 | 70 | 0.33 | * | 0.38 | * | 0.39 | * | 0.39 | * |
| WR | 1 | 1 | 1700 | 1700 | 374 | 0 | 0 | 0.22 | | 0.22 | | 0.22 | | 0.22 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.07 | 0.07 | 0.07 | 0.07 |
| EAST/WEST CRITICAL SUMS = | 0.40 | 0.45 | 0.46 | 0.46 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.52 | 0.57 | 0.58 | 0.58 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | F&S

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: WOODRUFF AVENUE WEST & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 2 | 0 | 0 | | | | | | * | | * |
| NT | 1 | 1 | 1700 | 1700 | 0 | 0 | -50 | 0.00 | * | 0.00 | * | -0.10 | | -0.10 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | -125 | | | | | | | | |
| SL | 2 | 2 | 3400 | 3400 | 206 | 15 | 0 | 0.06 | * | 0.07 | * | 0.07 | | 0.07 | |
| ST | 0 | 0 | 0 | 0 | 0 | 0 | -20 | | | | | | * | | * |
| SR | 1 | 1 | 1700 | 1700 | 52 | 0 | 20 | 0.03 | | 0.03 | | 0.04 | | 0.04 | |
| EL | 1 | 1 | 1700 | 1700 | 44 | 0 | 10 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| ET | 3 | 3 | 5100 | 5100 | 800 | 85 | -60 | 0.16 | | 0.17 | | 0.16 | | 0.16 | |
| ER | 0 | 0 | 0 | 0 | 6 | 0 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 27 | 0 | -45 | 0.02 | | 0.02 | | -0.01 | | -0.01 | |
| WT | 3 | 3 | 5100 | 5100 | 1751 | 260 | 40 | 0.36 | * | 0.42 | * | 0.42 | * | 0.42 | * |
| WR | 0 | 0 | 0 | 0 | 102 | 10 | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.06 | 0.07 | 0.00 | 0.00 |
| EAST/WEST CRITICAL SUMS = | 0.39 | 0.45 | 0.45 | 0.45 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.50 | 0.57 | 0.50 | 0.50 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME: WW&F

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

```
                    INTERSECTION CAPACITY UTILIZATION ANALYSIS


            PROJECT:        LAKEWOOD/FIRESTONE SPECIFIC PLAN
            INTERVAL:       PM PEAK HOUR
            INTERSECTION:   WOODRUFF AVENUE WEST & FIRESTONE BOULEVARD
-------------------------------------------------------------------------------------------------------------------------------------
||          ||      |      ||          |          ||          |          |          ||          |  |EXISTING  |  |EX.+OTHER|  |EX.+OTHER|  ||
||MOVEMENT  ||EXIST | PROP ||EXISTING  |PROPOSED  ||EXISTING  |  OTHER   | PROJECT  ||EXISTING  |  |+ OTHER   |  |+PROJECT |  |+PROJECT |  ||
||          ||LANES |LANES ||CAPACITY  |CAPACITY  || VOLUME   | VOLUME   | VOLUME   ||   V/C    |  |   V/C    |  |   V/C   |  |V/C-W_IMP|  ||
||==========||======|======||==========|==========||==========|==========|==========||    ======|==|==========|==|=========|==|=========|==||
||   NL     ||   0  |   0  ||       0  |       0  ||       0  |       0  |       0  ||          |  |          |  |         |  |         |  ||
||   NT     ||   1  |   1  ||    1700  |    1700  ||       0  |       0  |     -25  ||   0.01   |* |   0.01   |* |  -0.04  |* |  -0.04  |* ||
||   NR     ||   0  |   0  ||       0  |       0  ||      11  |       0  |     -60  ||          |  |          |  |         |  |         |  ||
||   SL     ||   2  |   2  ||    3400  |    3400  ||     443  |      50  |       0  ||   0.13   |* |   0.15   |* |   0.15  |* |   0.15  |* ||
||   ST     ||   0  |   0  ||       0  |       0  ||       0  |       0  |      15  ||          |  |          |  |         |  |         |  ||
||   SR     ||   1  |   1  ||    1700  |    1700  ||      72  |       0  |      70  ||   0.04   |  |   0.04   |  |   0.08  |  |   0.08  |  ||
||   EL     ||   1  |   1  ||    1700  |    1700  ||     133  |       0  |      45  ||   0.08   |  |   0.08   |  |   0.10  |  |   0.10  |  ||
||   ET     ||   3  |   3  ||    5100  |    5100  ||    1880  |     370  |     160  ||   0.37   |* |   0.45   |* |   0.48  |* |   0.48  |* ||
||   ER     ||   0  |   0  ||       0  |       0  ||      21  |       0  |       0  ||          |  |          |  |         |  |         |  ||
||   WL     ||   1  |   1  ||    1700  |    1700  ||      19  |       0  |      30  ||   0.01   |* |   0.01   |* |   0.03  |* |   0.03  |* ||
||   WT     ||   3  |   3  ||    5100  |    5100  ||    1243  |     250  |     185  ||   0.30   |  |   0.36   |  |   0.40  |  |   0.40  |  ||
||   WR     ||   0  |   0  ||       0  |       0  ||     309  |      50  |       0  ||          |  |          |  |         |  |         |  ||
------------------------------------------------------------------------------------||===============================================||
                       ----------       NORTH/SOUTH CRITICAL SUMS =              ||   0.14      |    0.16      |    0.11     |    0.11     ||
 ICU SPREADSHEET FILE NAME|  WW&F    |                                            ||-----------------------------------------------||
                       ----------       EAST/WEST CRITICAL SUMS =                ||   0.38      |    0.46      |    0.51     |    0.51     ||
 N = NORTHBOUND, S = SOUTHBOUND                                                  ||-----------------------------------------------||
 E = EASTBOUND, W = WESTBOUND           CLEARANCE =                              ||   0.05      |    0.05      |    0.05     |    0.05     ||
 L = LEFT, T = THROUGH, R = RIGHT                                                ||===============================================||
 N.S. = NOT SIGNALIZED                  ICU VALUE =                              ||   0.57      |    0.67      |    0.67     |    0.67     ||
 LOS = LEVEL OF SERVICE                                                          ||-----------------------------------------------||
 * DENOTES CRITICAL MOVEMENTS           LOS =                                    ||    A        |     B        |     B       |     B       ||
                                                                                  =================================================
```

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: WOODRUFF AVENUE EAST & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 2 | 2 | 3400 | 3400 | 212 | 0 | -20 | 0.06 | * | 0.06 | * | 0.06 | * | 0.06 | * |
| NT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| NR | 1 | 1 | 1700 | 1700 | 100 | 0 | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| SL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | * | | * | | * | | * |
| SR | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| EL | 1 | 1 | 1700 | 1700 | 2 | 0 | 0 | 0.00 | * | 0.00 | * | 0.00 | * | 0.00 | * |
| ET | 3 | 3 | 5100 | 5100 | 802 | 95 | -170 | 0.16 | | 0.18 | | 0.14 | | 0.14 | |
| ER | 1 | 1 | 1700 | 1700 | 194 | 0 | -15 | 0.11 | | 0.11 | | 0.11 | | 0.11 | |
| WL | 1 | 2 | 1700 | 3400 | 274 | 0 | 0 | 0.16 | | 0.16 | | 0.16 | | 0.08 | |
| WT | 3 | 3 | 5100 | 5100 | 2372 | 270 | -75 | 0.47 | * | 0.52 | * | 0.50 | * | 0.50 | * |
| WR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.06 | 0.06 | 0.06 | 0.06 |
| EAST/WEST CRITICAL SUMS = | 0.47 | 0.52 | 0.50 | 0.50 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.58 | 0.63 | 0.61 | 0.61 |
| LOS = | A | B | B | B |

ICU SPREADSHEET FILE NAME: WE&F

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

```
                    INTERSECTION CAPACITY UTILIZATION ANALYSIS


              PROJECT:      LAKEWOOD/FIRESTONE SPECIFIC PLAN
              INTERVAL:     PM PEAK HOUR
              INTERSECTION: WOODRUFF AVENUE EAST & FIRESTONE BOULEVARD
-------------------------------------------------------------------------------------------------------------------------------------
||          ||      |      ||          |          ||          |          |          ||          |  |EXISTING  |  |EX.+OTHER |  |EX.+OTHER |  ||
||MOVEMENT  ||EXIST | PROP ||EXISTING  |PROPOSED  ||EXISTING  |  OTHER   | PROJECT  ||EXISTING  |  |+ OTHER   |  |+PROJECT  |  |+PROJECT  |  ||
||          ||LANES |LANES ||CAPACITY  |CAPACITY  || VOLUME   | VOLUME   | VOLUME   ||   V/C    |  |   V/C    |  |   V/C    |  |V/C-W_IMP |  ||
||----------||------|------||----------|----------||----------|----------|----------||----------|--|----------|--|----------|--|----------|--||
||   NL     ||    2 |    2 ||     3400 |     3400 ||      731 |        0 |       25 ||    0.22  |* |    0.22  |* |    0.22  |* |    0.22  |* ||
||   NT     ||    0 |    0 ||        0 |        0 ||        0 |        0 |        0 ||          |  |          |  |          |  |          |  ||
||   NR     ||    1 |    1 ||     1700 |     1700 ||      231 |        0 |        0 ||    0.14  |  |    0.14  |  |    0.14  |  |    0.14  |  ||
||   SL     ||    0 |    0 ||        0 |        0 ||        0 |        0 |        0 ||          |  |          |  |          |  |          |  ||
||   ST     ||    0 |    0 ||        0 |        0 ||        0 |        0 |        0 ||          |* |          |* |          |* |          |* ||
||   SR     ||    1 |    1 ||     1700 |     1700 ||        0 |        0 |        0 ||    0.00  |  |    0.00  |  |    0.00  |  |    0.00  |  ||
||   EL     ||    1 |    1 ||     1700 |     1700 ||       25 |        0 |        0 ||    0.01  |  |    0.01  |  |    0.01  |  |    0.01  |  ||
||   ET     ||    3 |    3 ||     5100 |     5100 ||     1777 |      425 |       85 ||    0.35  |* |    0.43  |* |    0.45  |* |    0.45  |* ||
||   ER     ||    1 |    1 ||     1700 |     1700 ||      468 |        0 |       15 ||    0.28  |  |    0.28  |  |    0.28  |  |    0.28  |  ||
||   WL     ||    1 |    2 ||     1700 |     3400 ||      389 |        0 |        0 ||    0.23  |* |    0.23  |* |    0.23  |* |    0.11  |* ||
||   WT     ||    3 |    3 ||     5100 |     5100 ||     1701 |      300 |      200 ||    0.33  |  |    0.39  |  |    0.43  |  |    0.43  |  ||
||   WR     ||    0 |    0 ||        0 |        0 ||        0 |        0 |        0 ||          |  |          |  |          |  |          |  ||
-------------------------------------------------------------------------------------||=================================================||
                           ---------            NORTH/SOUTH CRITICAL SUMS =   ||    0.22     |    0.22     |    0.22     |    0.22     ||
  ICU SPREADSHEET FILE NAME|  WE&F   |                                        ||-------------------------------------------------||
                           ---------            EAST/WEST CRITICAL SUMS =     ||    0.58     |    0.66     |    0.68     |    0.56     ||
  N = NORTHBOUND, S = SOUTHBOUND                                              ||-------------------------------------------------||
  E = EASTBOUND, W = WESTBOUND                  CLEARANCE =                   ||    0.05     |    0.05     |    0.05     |    0.05     ||
  L = LEFT, T = THROUGH, R = RIGHT                                            ||=================================================||
  N.S. = NOT SIGNALIZED                         ICU VALUE =                   ||    0.85     |    0.93     |    0.95     |    0.83     ||
  LOS = LEVEL OF SERVICE                                                      ||-------------------------------------------------||
  * DENOTES CRITICAL MOVEMENTS                  LOS =                         ||     D       |     E       |     E       |     D       ||
                                                                              ===================================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** STEWART/GRAY ROAD & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | * | | * | | * | | * |
| NR | 2 | 2 | 3400 | 3400 | 563 | 15 | 0 | 0.17 | | 0.17 | | 0.17 | | 0.17 | |
| SL | 1 | 1 | 1700 | 1700 | 49 | 0 | 0 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| ST | 0.5 | 0.5 | 850 | 850 | 19 | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |
| SR | 0.5 | 0.5 | 850 | 850 | 8 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| EL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| ET | 3 | 3 | 5100 | 5100 | 830 | 95 | -170 | 0.17 | * | 0.19 | * | 0.15 | * | 0.15 | * |
| ER | 0 | 0 | 0 | 0 | 19 | 0 | 0 | | | | | | | | |
| WL | 2 | 2 | 3400 | 3400 | 984 | 70 | 0 | 0.29 | * | 0.31 | * | 0.31 | * | 0.31 | * |
| WT | 3 | 3 | 5100 | 5100 | 1658 | 270 | -75 | 0.33 | | 0.38 | | 0.36 | | 0.36 | |
| WR | 0 | 0 | 0 | 0 | 3 | 0 | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.03 | 0.03 | 0.03 | 0.03 |
| EAST/WEST CRITICAL SUMS = | 0.46 | 0.50 | 0.46 | 0.46 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.54 | 0.58 | 0.54 | 0.54 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME: SG&F

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** STEWART/GRAY ROAD & FIRESTONE BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | * | | * | | * | | * |
| NR | 2 | 2 | 3400 | 3400 | 1068 | 65 | 0 | 0.31 | | 0.33 | | 0.33 | | 0.33 | |
| SL | 1 | 1 | 1700 | 1700 | 72 | 0 | 0 | 0.04 | * | 0.04 | * | 0.04 | * | 0.04 | * |
| ST | 0.5 | 0.5 | 850 | 850 | 20 | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |
| SR | 0.5 | 0.5 | 850 | 850 | 29 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| EL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| ET | 3 | 3 | 5100 | 5100 | 1941 | 425 | 85 | 0.39 | * | 0.47 | * | 0.49 | * | 0.49 | * |
| ER | 0 | 0 | 0 | 0 | 27 | 0 | 0 | | | | | | | | |
| WL | 2 | 2 | 3400 | 3400 | 480 | 30 | 0 | 0.14 | * | 0.15 | * | 0.15 | * | 0.15 | * |
| WT | 3 | 3 | 5100 | 5100 | 1249 | 300 | 200 | 0.25 | | 0.31 | | 0.35 | | 0.35 | |
| WR | 0 | 0 | 0 | 0 | 44 | 0 | 0 | | | | | | | | |

| | EXISTING | EXISTING + OTHER | EX.+OTHER +PROJECT | EX.+OTHER +PROJECT W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.04 | 0.04 | 0.04 | 0.04 |
| EAST/WEST CRITICAL SUMS = | 0.53 | 0.62 | 0.64 | 0.64 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.62 | 0.71 | 0.73 | 0.73 |
| LOS = | B | C | C | C |

ICU SPREADSHEET FILE NAME | SG&F |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: FIRESTONE & I-605 NB RAMPS (SPECIFIC PLAN)

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0.5 | 0.5 | 850 | 850 | 352 | | | 0.41 | * | 0.41 | * | 0.41 | * | 0.41 | * |
| NT | 1 | 1 | 1700 | 1700 | 325 | | | 0.19 | | 0.19 | | 0.19 | | 0.19 | |
| NR | 0.5 | 0.5 | 850 | 850 | 66 | | | 0.08 | | 0.08 | | 0.08 | | 0.08 | |
| SL | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | 0 | | | | * | | * | | * | | * |
| SR | 0 | 0 | 0 | 0 | 0 | 105 | -15 | | | | | | | | |
| EL | 2 | 2 | 3400 | 3400 | 541 | 30 | -35 | 0.16 | * | 0.17 | * | 0.16 | * | 0.16 | * |
| ET | 2 | 2 | 3400 | 3400 | 772 | 80 | -105 | 0.25 | | 0.28 | | 0.25 | | 0.25 | |
| ER | 0 | 0 | 0 | 0 | 93 | | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 63 | | | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| WT | 2 | 2 | 3400 | 3400 | 1350 | 310 | -45 | 0.40 | * | 0.49 | * | 0.48 | * | 0.48 | * |
| WR | 1 | 1 | 1700 | 1700 | 372 | | | 0.22 | | 0.22 | | 0.22 | | 0.22 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.41 | 0.41 | 0.41 | 0.41 |
| EAST/WEST CRITICAL SUMS = | 0.56 | 0.66 | 0.64 | 0.64 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 1.02 | 1.12 | 1.10 | 1.10 |
| LOS = | F | F | F | F |

ICU SPREADSHEET FILE NAME F6605N

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

```
                      INTERSECTION CAPACITY UTILIZATION ANALYSIS


               PROJECT:       DOWNEY SPECIFIC PLAN
               INTERVAL:      PM PEAK HOUR
               INTERSECTION:  FIRESTONE & I-605 NB RAMPS (SPECIFIC PLAN)
-------------------------------------------------------------------------------------------------------------------------------------
||          ||      |      ||          |          ||          |          |          ||          |  |EXISTING  |  |EX.+OTHER |  |EX.+OTHER |  ||
||MOVEMENT  ||EXIST | PROP ||EXISTING  |PROPOSED  ||EXISTING  |  OTHER   | PROJECT  ||EXISTING  |  |+ OTHER   |  |+PROJECT  |  |+PROJECT  |  ||
||          ||LANES |LANES ||CAPACITY  |CAPACITY  || VOLUME   | VOLUME   | VOLUME   ||   V/C    |  |   V/C    |  |   V/C    |  |V/C-W_IMP |  ||
||----------||------|------||----------|----------||----------|----------|----------||----------|--|----------|--|----------|--|----------|--||
||   NL     || 0.5  | 0.5  ||     850  |     850  ||     373  |          |          ||     0.44 |* |     0.44 |* |     0.44 |* |     0.44 |* ||
||   NT     ||   1  |   1  ||    1700  |    1700  ||     363  |          |          ||     0.21 |  |     0.21 |  |     0.21 |  |     0.21 |  ||
||   NR     || 0.5  | 0.5  ||     850  |     850  ||      77  |          |          ||     0.09 |  |     0.09 |  |     0.09 |  |     0.09 |  ||
||   SL     ||   0  |   0  ||       0  |       0  ||       0  |          |          ||          |  |          |  |          |  |          |  ||
||   ST     ||   0  |   0  ||       0  |       0  ||       0  |          |          ||          |* |          |* |          |* |          |* ||
||   SR     ||   0  |   0  ||       0  |       0  ||       0  |      95  |      40  ||          |  |          |  |          |  |          |  ||
||   EL     ||   2  |   2  ||    3400  |    3400  ||     549  |     145  |      15  ||     0.16 |* |     0.20 |* |     0.21 |* |     0.21 |* ||
||   ET     ||   2  |   2  ||    3400  |    3400  ||     839  |     440  |      50  ||     0.28 |  |     0.41 |  |     0.42 |  |     0.42 |  ||
||   ER     ||   0  |   0  ||       0  |       0  ||     114  |          |          ||          |  |          |  |          |  |          |  ||
||   WL     ||   1  |   1  ||    1700  |    1700  ||      50  |          |          ||     0.03 |  |     0.03 |  |     0.03 |  |     0.03 |  ||
||   WT     ||   2  |   2  ||    3400  |    3400  ||    1256  |     290  |     120  ||     0.37 |* |     0.45 |* |     0.49 |* |     0.49 |* ||
||   WR     ||   1  |   1  ||    1700  |    1700  ||     396  |          |          ||     0.23 |  |     0.23 |  |     0.23 |  |     0.23 |  ||
-------------------------------------------------------------------------------------------------||=========================================================||
                          ---------              NORTH/SOUTH CRITICAL SUMS =     ||     0.44    |     0.44    |     0.44    |     0.44    ||
  ICU SPREADSHEET FILE NAME| F&605N  |                                           ||---------------------------------------------------------||
                          ---------              EAST/WEST CRITICAL SUMS =       ||     0.53    |     0.65    |     0.70    |     0.70    ||
  N = NORTHBOUND, S = SOUTHBOUND                                                 ||---------------------------------------------------------||
  E = EASTBOUND, W = WESTBOUND                   CLEARANCE =                     ||     0.05    |     0.05    |     0.05    |     0.05    ||
  L = LEFT, T = THROUGH, R = RIGHT                                               ||=========================================================||
  N.S. = NOT SIGNALIZED                          ICU VALUE =                     ||     1.02    |     1.14    |     1.19    |     1.19    ||
  LOS = LEVEL OF SERVICE                                                         ||---------------------------------------------------------||
  * DENOTES CRITICAL MOVEMENTS                   LOS =                           ||      F      |      F      |      F      |      F      ||
                                                                                 ===========================================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY SPECIFIC PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** FIRESTONE/I-605 SB RAMPS (SPECIFIC PLAN)

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | | | | * | | * | | * | | * |
| NR | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| SL | 1.5 | 1.5 | 2550 | 2550 | 277 | | | 0.11 | * | 0.11 | * | 0.11 | * | 0.11 | * |
| ST | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| SR | 1.5 | 1.5 | 2550 | 2550 | 487 | 105 | -15 | 0.19 | | 0.23 | | 0.23 | | 0.23 | |
| EL | 0 | 0 | 0 | 0 | 0 | | | | * | | * | | * | | * |
| ET | 2 | 2 | 3400 | 3400 | 843 | 110 | -135 | 0.25 | | 0.28 | | 0.24 | | 0.24 | |
| ER | 1 | 1 | 1700 | 1700 | 240 | 30 | -35 | 0.14 | | 0.16 | | 0.14 | | 0.14 | |
| WL | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| WT | 3 | 3 | 5100 | 5100 | 1568 | 415 | -60 | 0.31 | * | 0.39 | * | 0.38 | * | 0.38 | * |
| WR | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.11 | 0.11 | 0.11 | 0.11 |
| EAST/WEST CRITICAL SUMS = | 0.31 | 0.39 | 0.38 | 0.38 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.47 | 0.55 | 0.54 | 0.54 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | F&605S

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

### INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** FIRESTONE/I-605 SB RAMPS (SPECIFIC PLAN)

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| NT | 0 | 0 | 0 | 0 | 0 | | | | * | | * | | * | | * |
| NR | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| SL | 1.5 | 1.5 | 2550 | 2550 | 350 | | | 0.14 | * | 0.14 | * | 0.14 | * | 0.14 | * |
| ST | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| SR | 1.5 | 1.5 | 2550 | 2550 | 533 | 95 | 40 | 0.21 | | 0.25 | | 0.26 | | 0.26 | |
| EL | 0 | 0 | 0 | 0 | 0 | | | | * | | | | | | |
| ET | 2 | 2 | 3400 | 3400 | 875 | 585 | 70 | 0.26 | | 0.43 | * | 0.45 | * | 0.45 | * |
| ER | 1 | 1 | 1700 | 1700 | 324 | 145 | 15 | 0.19 | | 0.28 | | 0.28 | | 0.28 | |
| WL | 0 | 0 | 0 | 0 | 0 | | | | | | * | | * | | * |
| WT | 3 | 3 | 5100 | 5100 | 1595 | 385 | 160 | 0.31 | * | 0.39 | | 0.42 | | 0.42 | |
| WR | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |

| | EXISTING | EXISTING + OTHER | EX.+OTHER +PROJECT | EX.+OTHER +PROJECT W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.14 | 0.14 | 0.14 | 0.14 |
| EAST/WEST CRITICAL SUMS = | 0.31 | 0.43 | 0.45 | 0.45 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.50 | 0.62 | 0.64 | 0.64 |
| LOS = | A | B | B | B |

ICU SPREADSHEET FILE NAME | F&605S

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & CHEROKEE/GOTHAM

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 65 | 0 | -5 | 0.04 | * | 0.04 | * | 0.04 | * | 0.04 | * |
| NT | 2 | 2 | 3400 | 3400 | 1177 | 35 | -26 | 0.35 | | 0.36 | | 0.35 | | 0.35 | |
| NR | 0 | 0 | 0 | 0 | 15 | 0 | 0 | | | | | | | | |
| SL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| ST | 2 | 2 | 3400 | 3400 | 1034 | 125 | -45 | 0.32 | * | 0.36 | * | 0.34 | * | 0.34 | * |
| SR | 0 | 0 | 0 | 0 | 49 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 53 | 0 | 0 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| ET | 0 | 0 | 0 | 0 | 0 | 10 | 0 | | | | | | | | |
| ER | 1 | 1 | 1700 | 1700 | 51 | 0 | -5 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| WT | 0 | 0 | 0 | 0 | 0 | 40 | 0 | | * | | * | | * | | * |
| WR | 1 | 1 | 1700 | 1700 | 46 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.36 | 0.40 | 0.38 | 0.38 |
| EAST/WEST CRITICAL SUMS = | 0.03 | 0.03 | 0.03 | 0.03 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.44 | 0.48 | 0.46 | 0.46 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME: L&CG

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** LAKEWOOD BOULEVARD & CHEROKEE/GOTHAM

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 87 | 0 | 5 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| NT | 2 | 2 | 3400 | 3400 | 1068 | 170 | -10 | 0.31 | | 0.36 | | 0.36 | | 0.36 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| SL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| ST | 2 | 2 | 3400 | 3400 | 1385 | 120 | 15 | 0.44 | * | 0.47 | * | 0.48 | * | 0.48 | * |
| SR | 0 | 0 | 0 | 0 | 100 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 93 | 0 | 0 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| ET | 0 | 0 | 0 | 0 | 0 | 50 | 0 | | | | | | | | |
| ER | 1 | 1 | 1700 | 1700 | 99 | 0 | 10 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| WT | 0 | 0 | 0 | 0 | 0 | 25 | 0 | | * | | * | | * | | * |
| WR | 1 | 1 | 1700 | 1700 | 33 | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.49 | 0.52 | 0.53 | 0.53 |
| EAST/WEST CRITICAL SUMS = | 0.05 | 0.05 | 0.05 | 0.05 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.59 | 0.62 | 0.63 | 0.63 |
| LOS = | A | B | B | B |

ICU SPREADSHEET FILE NAME | L&CG |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & 5TH/CECILIA

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 62 | 0 | -15 | 0.04 | | 0.04 | | 0.03 | | 0.03 | |
| NT | 2 | 2 | 3400 | 3400 | 1018 | 200 | -30 | 0.32 | * | 0.38 | * | 0.37 | * | 0.37 | * |
| NR | 0 | 0 | 0 | 0 | 66 | 0 | -10 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 66 | 0 | -10 | 0.04 | * | 0.04 | * | 0.03 | * | 0.03 | * |
| ST | 2 | 2 | 3400 | 3400 | 924 | 155 | -40 | 0.28 | | 0.32 | | 0.31 | | 0.31 | |
| SR | 0 | 0 | 0 | 0 | 22 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 44 | 0 | 0 | 0.03 | * | 0.03 | * | 0.03 | * | 0.03 | * |
| ET | 2 | 2 | 3400 | 3400 | 238 | 0 | -5 | 0.10 | | 0.10 | | 0.09 | | 0.09 | |
| ER | 0 | 0 | 0 | 0 | 92 | 0 | -20 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 130 | 0 | -20 | 0.08 | | 0.08 | | 0.06 | | 0.06 | |
| WT | 1 | 1 | 1700 | 1700 | 266 | 0 | 0 | 0.16 | * | 0.16 | * | 0.16 | * | 0.16 | * |
| WR | 1 | 1 | 1700 | 1700 | 102 | 0 | 2 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.36 | 0.42 | 0.40 | 0.40 |
| EAST/WEST CRITICAL SUMS = | 0.19 | 0.19 | 0.19 | 0.19 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.60 | 0.66 | 0.64 | 0.64 |
| LOS = | A | B | B | B |

ICU SPREADSHEET FILE NAME: 5TH&L

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** LAKEWOOD BOULEVARD & 5TH/CECILIA

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 88 | 0 | -5 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| NT | 2 | 2 | 3400 | 3400 | 1101 | 265 | -10 | 0.34 | * | 0.42 | * | 0.42 | * | 0.42 | * |
| NR | 0 | 0 | 0 | 0 | 66 | 0 | -5 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 267 | 0 | -2 | 0.16 | * | 0.16 | * | 0.16 | * | 0.16 | * |
| ST | 2 | 2 | 3400 | 3400 | 1109 | 325 | 25 | 0.34 | | 0.43 | | 0.44 | | 0.44 | |
| SR | 0 | 0 | 0 | 0 | 42 | 0 | 0 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 53 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| ET | 2 | 2 | 3400 | 3400 | 412 | 0 | -1 | 0.15 | * | 0.15 | * | 0.15 | * | 0.15 | * |
| ER | 0 | 0 | 0 | 0 | 81 | 0 | 10 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 85 | 0 | 5 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| WT | 1 | 1 | 1700 | 1700 | 249 | 0 | 0 | 0.15 | | 0.15 | | 0.15 | | 0.15 | |
| WR | 1 | 1 | 1700 | 1700 | 238 | 0 | 5 | 0.14 | | 0.14 | | 0.14 | | 0.14 | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX.+OTHER +PROJECT V/C | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.50 | 0.58 | 0.58 | 0.58 |
| EAST/WEST CRITICAL SUMS = | 0.20 | 0.20 | 0.20 | 0.20 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.75 | 0.83 | 0.83 | 0.83 |
| LOS = | C | D | D | D |

ICU SPREADSHEET FILE NAME | 5TH&L |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & 3RD-STONEWOOD STREET

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 82 | 0 | 0 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| NT | 2 | 2 | 3400 | 3400 | 1107 | 200 | -105 | 0.33 | | 0.38 | | 0.35 | | 0.35 | |
| NR | 1 | 1 | 1700 | 1700 | 26 | 0 | -10 | 0.02 | | 0.02 | | 0.01 | | 0.01 | |
| SL | 1 | 1 | 1700 | 1700 | 13 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| ST | 2 | 2 | 3400 | 3400 | 1023 | 155 | -75 | 0.32 | * | 0.37 | * | 0.35 | * | 0.35 | * |
| SR | 0 | 0 | 0 | 0 | 77 | 0 | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | 62 | 0 | 0 | | | | | | | | |
| ET | 1 | 1 | 1700 | 1700 | 6 | 0 | 0 | 0.08 | * | 0.08 | * | 0.08 | * | 0.08 | * |
| ER | 0 | 0 | 0 | 0 | 65 | 0 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 10 | 0 | -70 | 0.01 | * | 0.01 | * | -0.04 | * | -0.04 | * |
| WT | 0 | 0 | 0 | 0 | 7 | 0 | 0 | | | | | | | | |
| WR | 1 | 1 | 1700 | 1700 | 11 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.37 | 0.42 | 0.40 | 0.40 |
| EAST/WEST CRITICAL SUMS = | 0.09 | 0.09 | 0.04 | 0.04 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.51 | 0.56 | 0.49 | 0.49 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | 3RD&L

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & 3RD-STONEWOOD STREET

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 18 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| NT | 2 | 2 | 3400 | 3400 | 1161 | 265 | -25 | 0.34 | * | 0.42 | * | 0.41 | * | 0.41 | * |
| NR | 1 | 1 | 1700 | 1700 | 230 | 0 | -5 | 0.14 | | 0.14 | | 0.13 | | 0.13 | |
| SL | 1 | 1 | 1700 | 1700 | 159 | 0 | 0 | 0.09 | * | 0.09 | * | 0.09 | * | 0.09 | * |
| ST | 2 | 2 | 3400 | 3400 | 1172 | 325 | 40 | 0.35 | | 0.44 | | 0.45 | | 0.45 | |
| SR | 0 | 0 | 0 | 0 | 7 | 0 | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | 16 | 0 | 0 | | | | | | | | |
| ET | 1 | 1 | 1700 | 1700 | 1 | 0 | 0 | 0.02 | * | 0.02 | * | 0.02 | * | 0.02 | * |
| ER | 0 | 0 | 0 | 0 | 20 | 0 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 89 | 0 | -5 | 0.05 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| WT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| WR | 1 | 1 | 1700 | 1700 | 103 | 0 | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |

ICU SPREADSHEET FILE NAME | 3RD&L |

| | EXISTING | EXISTING + OTHER | EX.+OTHER +PROJECT | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.43 | 0.51 | 0.50 | 0.50 |
| EAST/WEST CRITICAL SUMS = | 0.07 | 0.07 | 0.07 | 0.07 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.55 | 0.63 | 0.62 | 0.62 |
| LOS = | A | B | B | B |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & BELLFLOWER BOULEVARD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | EXISTING + OTHER V/C | EX.+OTHER +PROJECT V/C | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 5 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| NT | 2 | 2 | 3400 | 3400 | 986 | 115 | -65 | 0.29 * | 0.32 * | 0.31 * | 0.31 * |
| NR | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | | | |
| SL | 1 | 1 | 1700 | 1700 | 326 | 0 | 0 | 0.19 * | 0.19 * | 0.19 * | 0.19 * |
| ST | 3 | 3 | 5100 | 5100 | 834 | 25 | -40 | 0.16 | 0.17 | 0.16 | 0.16 |
| SR | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | | | |
| EL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | | |
| ET | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 * | 0.00 * |
| ER | 0 | 0 | 0 | 0 | 2 | 0 | 0 | | | | |
| WL | 0.5 | 0.5 | 850 | 850 | 4 | 0 | 0 | 0.00 | 0.00 | 0.00 * | 0.00 * |
| WT | 0.5 | 0.5 | 850 | 850 | 1 | 0 | 0 | 0.00 * | 0.00 * | 0.00 | 0.00 |
| WR | 2 | 2 | 3400 | 3400 | 574 | 0 | 5 | 0.17 | 0.17 | 0.17 | 0.17 |

|  |  |  |  |  |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.48 | 0.51 | 0.50 | 0.50 |
| EAST/WEST CRITICAL SUMS = | 0.00 | 0.00 | 0.00 | 0.00 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.53 | 0.56 | 0.55 | 0.55 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | L&B

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

# INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & CLETA STREET

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 78 | 95 | 0 | 0.05 | * | 0.10 | * | 0.10 | * | 0.10 | * |
| NT | 2 | 2 | 3400 | 3400 | 702 | 115 | -65 | 0.21 | | 0.24 | | 0.22 | | 0.22 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| ST | 2 | 2 | 3400 | 3400 | 807 | 25 | -40 | 0.25 | * | 0.26 | * | 0.25 | * | 0.25 | * |
| SR | 0 | 0 | 0 | 0 | 53 | 0 | 0 | | | | | | | | |
| EL | 1 | 0 | 1700 | 0 | 43 | 0 | 5 | 0.03 | * | 0.03 | * | 0.03 | * | | |
| ET | 0 | 1 | 0 | 1700 | 0 | 0 | 0 | | | | | | | 0.03 | * |
| ER | 1 | 1 | 1700 | 1700 | 57 | 20 | 0 | 0.03 | | 0.05 | | 0.05 | | 0.05 | |
| WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | * |
| WT | 0 | 1 | 0 | 1700 | 0 | 0 | 0 | | * | | * | | * | 0.00 | |
| WR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.30 | 0.36 | 0.35 | 0.35 |
| EAST/WEST CRITICAL SUMS = | 0.03 | 0.03 | 0.03 | 0.03 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.38 | 0.44 | 0.43 | 0.43 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | L&C

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

```
                  INTERSECTION CAPACITY UTILIZATION ANALYSIS


            PROJECT:      LAKEWOOD/FIRESTONE SPECIFIC PLAN
            INTERVAL:     PM PEAK HOUR
            INTERSECTION: LAKEWOOD BOULEVARD & BELLFLOWER BOULEVARD
------------------------------------------------------------------------------------------------------------
||         ||      |      ||         |         ||         |         |         ||         |  |EXISTING |  |EX.+OTHER|  |EX.+OTHER|  ||
||MOVEMENT ||EXIST | PROP ||EXISTING |PROPOSED ||EXISTING |  OTHER  | PROJECT ||EXISTING |  |+ OTHER  |  |+PROJECT |  |+PROJECT |  ||
||         ||LANES |LANES ||CAPACITY |CAPACITY || VOLUME  | VOLUME  | VOLUME  ||   V/C   |  |   V/C   |  |   V/C   |  |V/C-W_IMP|  ||
||---------||------|------||---------|---------||---------|---------|---------||---------|--|---------|--|---------|--|---------|--||
||   NL    ||    1 |    1 ||    1700 |    1700 ||       0 |       0 |       0 ||   0.00  |  |   0.00  |  |   0.00  |  |   0.00  |  ||
||   NT    ||    2 |    2 ||    3400 |    3400 ||    1116 |      84 |      50 ||   0.33  |* |   0.35  |* |   0.37  |* |   0.37  |* ||
||   NR    ||    0 |    0 ||       0 |       0 ||       1 |       0 |       0 ||         |  |         |  |         |  |         |  ||
||   SL    ||    1 |    1 ||    1700 |    1700 ||     479 |       0 |       5 ||   0.28  |* |   0.28  |* |   0.28  |* |   0.28  |* ||
||   ST    ||    3 |    3 ||    5100 |    5100 ||    1096 |     150 |      15 ||   0.22  |  |   0.24  |  |   0.25  |  |   0.25  |  ||
||   SR    ||    0 |    0 ||       0 |       0 ||       2 |       0 |       0 ||         |  |         |  |         |  |         |  ||
||   EL    ||    0 |    0 ||       0 |       0 ||       0 |       0 |       0 ||         |* |         |* |         |  |         |  ||
||   ET    ||    1 |    1 ||    1700 |    1700 ||       1 |       0 |       0 ||   0.00  |  |   0.00  |  |   0.00  |* |   0.00  |* ||
||   ER    ||    0 |    0 ||       0 |       0 ||       2 |       0 |       0 ||         |  |         |  |         |  |         |  ||
||   WL    ||  0.5 |  0.5 ||     850 |     850 ||       1 |       0 |       0 ||   0.00  |  |   0.00  |  |   0.00  |* |   0.00  |* ||
||   WT    ||  0.5 |  0.5 ||     850 |     850 ||       0 |       0 |       0 ||   0.00  |* |   0.00  |* |   0.00  |  |   0.00  |  ||
||   WR    ||    2 |    2 ||    3400 |    3400 ||     416 |       0 |       5 ||   0.12  |  |   0.12  |  |   0.12  |  |   0.12  |  ||
-------------------------------------------------------------------------------||==========================================================||
                      ---------          NORTH/SOUTH CRITICAL SUMS =          ||   0.61     |   0.63     |   0.65     |   0.65      ||
 ICU SPREADSHEET FILE NAME|  L&B  |                                            ||----------------------------------------------------------||
                      ---------          EAST/WEST CRITICAL SUMS =            ||   0.00     |   0.00     |   0.00     |   0.00      ||
 N = NORTHBOUND, S = SOUTHBOUND                                               ||----------------------------------------------------------||
 E = EASTBOUND, W = WESTBOUND            CLEARANCE =                          ||   0.05     |   0.05     |   0.05     |   0.05      ||
 L = LEFT, T = THROUGH, R = RIGHT                                             ||==========================================================||
 N.S. = NOT SIGNALIZED                   ICU VALUE =                          ||   0.66     |   0.68     |   0.70     |   0.70      ||
 LOS = LEVEL OF SERVICE                                                       ||----------------------------------------------------------||
 * DENOTES CRITICAL MOVEMENTS            LOS =                                ||    B       |    B       |    B       |    B        ||
                                                                                ============================================================
```

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & CLETA STREET

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 37 | 40 | 0 | 0.02 | * | 0.05 | * | 0.05 | * | 0.05 | * |
| NT | 2 | 2 | 3400 | 3400 | 703 | 85 | 45 | 0.21 | | 0.23 | | 0.25 | | 0.25 | |
| NR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 58 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| ST | 2 | 2 | 3400 | 3400 | 1322 | 150 | 10 | 0.39 | * | 0.43 | * | 0.44 | * | 0.44 | * |
| SR | 0 | 0 | 0 | 0 | 0 | 0 | 10 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | 60 | 0 | 10 | | | | | | | | |
| ET | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.04 | * | 0.04 | * | 0.04 | * | 0.04 | * |
| ER | 1 | 1 | 1700 | 1700 | 80 | 85 | 0 | 0.05 | | 0.10 | | 0.10 | | 0.10 | |
| WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | * | | * | | * | | * |
| WT | 1 | 1 | 1700 | 1700 | 0 | 0 | 0 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| WR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |

| | EXISTING V/C | EXISTING + OTHER V/C | EX.+OTHER +PROJECT V/C | EX.+OTHER +PROJECT V/C-W_IMP |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.41 | 0.48 | 0.49 | 0.49 |
| EAST/WEST CRITICAL SUMS = | 0.04 | 0.04 | 0.04 | 0.04 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.50 | 0.57 | 0.58 | 0.58 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME | L&C

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTONE SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: LAKEWOOD BOULEVARD & STEWART & GRAY ROAD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 154 | 0 | 0 | 0.09 | * | 0.09 | * | 0.09 | * | 0.09 | * |
| NT | 2 | 2 | 3400 | 3400 | 723 | 190 | -70 | 0.24 | | 0.29 | | 0.27 | | 0.27 | |
| NR | 0 | 0 | 0 | 0 | 79 | 0 | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 51 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| ST | 2 | 2 | 3400 | 3400 | 797 | 40 | -40 | 0.25 | * | 0.26 | * | 0.25 | * | 0.25 | * |
| SR | 0 | 0 | 0 | 0 | 42 | 0 | -5 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 67 | 0 | 5 | 0.04 | * | 0.04 | * | 0.04 | * | 0.04 | * |
| ET | 2 | 2 | 3400 | 3400 | 661 | 15 | 0 | 0.23 | | 0.23 | | 0.23 | | 0.23 | |
| ER | 0 | 0 | 0 | 0 | 118 | 0 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 67 | 0 | 0 | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| WT | 2 | 2 | 3400 | 3400 | 782 | 70 | 0 | 0.23 | * | 0.25 | * | 0.25 | * | 0.25 | * |
| WR | 1 | 1 | 1700 | 1700 | 97 | 0 | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.34 | 0.35 | 0.34 | 0.34 |
| EAST/WEST CRITICAL SUMS = | 0.27 | 0.29 | 0.29 | 0.29 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.66 | 0.69 | 0.68 | 0.68 |
| LOS = | B | B | B | B |

ICU SPREADSHEET FILE NAME: L&SG

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** LAKEWOOD/FIRESTONE SPECIFIC PLAN
**INTERVAL:** PM PEAK HOUR
**INTERSECTION:** LAKEWOOD BOULEVARD & STEWART & GRAY ROAD

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 241 | 0 | 0 | 0.14 | * | 0.14 | * | 0.14 | * | 0.14 | * |
| NT | 2 | 2 | 3400 | 3400 | 933 | 120 | 20 | 0.35 | | 0.38 | | 0.39 | | 0.39 | |
| NR | 0 | 0 | 0 | 0 | 241 | 0 | 0 | | | | | | | | |
| SL | 1 | 1 | 1700 | 1700 | 49 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| ST | 2 | 2 | 3400 | 3400 | 883 | 220 | -10 | 0.29 | * | 0.35 | * | 0.35 | * | 0.35 | * |
| SR | 0 | 0 | 0 | 0 | 93 | 0 | 15 | | | | | | | | |
| EL | 1 | 1 | 1700 | 1700 | 83 | 0 | 25 | 0.05 | | 0.05 | | 0.06 | | 0.06 | |
| ET | 2 | 2 | 3400 | 3400 | 840 | 65 | 0 | 0.28 | * | 0.30 | * | 0.30 | * | 0.30 | * |
| ER | 0 | 0 | 0 | 0 | 108 | 0 | 0 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | 105 | 0 | 0 | 0.06 | * | 0.06 | * | 0.06 | * | 0.06 | * |
| WT | 2 | 2 | 3400 | 3400 | 700 | 30 | 0 | 0.21 | | 0.21 | | 0.21 | | 0.21 | |
| WR | 1 | 1 | 1700 | 1700 | 16 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.43 | 0.49 | 0.49 | 0.49 |
| EAST/WEST CRITICAL SUMS = | 0.34 | 0.36 | 0.36 | 0.36 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.82 | 0.90 | 0.90 | 0.90 |
| LOS = | D | D | D | D |

ICU SPREADSHEET FILE NAME | L&SG

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTON SPECIFIC PLAN
INTERVAL: AM PEAK HOUR
INTERSECTION: STEWART/GRAY ROAD & WOODRUFF AVENUE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 129 | 0 | 0 | 0.08 | * | 0.08 | * | 0.08 | * | 0.08 | * |
| NT | 2 | 2 | 3400 | 3400 | 313 | 0 | -20 | 0.09 | | 0.09 | | 0.09 | | 0.09 | |
| NR | 1 | 1 | 1700 | 1700 | 82 | 0 | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| SL | 1 | 1 | 1700 | 1700 | 10 | 0 | 0 | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| ST | 2 | 2 | 3400 | 3400 | 240 | 0 | -40 | 0.07 | * | 0.07 | * | 0.06 | * | 0.06 | * |
| SR | 1 | 1 | 1700 | 1700 | 70 | 0 | 0 | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| EL | 1 | 1 | 1700 | 1700 | 53 | 0 | 0 | 0.03 | | 0.03 | * | 0.03 | * | 0.03 | * |
| ET | 2 | 2 | 3400 | 3400 | 440 | 15 | 0 | 0.13 | * | 0.13 | | 0.13 | | 0.13 | |
| ER | 1 | 1 | 1700 | 1700 | 106 | 0 | 0 | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| WL | 1 | 1 | 1700 | 1700 | 201 | 0 | 0 | 0.12 | * | 0.12 | | 0.12 | | 0.12 | |
| WT | 2 | 2 | 3400 | 3400 | 701 | 70 | 0 | 0.21 | | 0.23 | * | 0.23 | * | 0.23 | * |
| WR | 1 | 1 | 1700 | 1700 | 39 | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.15 | 0.15 | 0.14 | 0.14 |
| EAST/WEST CRITICAL SUMS = | 0.25 | 0.26 | 0.26 | 0.26 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.45 | 0.46 | 0.45 | 0.45 |
| LOS = | A | A | A | A |

ICU SPREADSHEET FILE NAME: SG&W

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: LAKEWOOD/FIRESTON SPECIFIC PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: STEWART/GRAY ROAD & WOODRUFF AVENUE

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | EXISTING VOLUME | OTHER VOLUME | PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | 169 | 0 | 0 | 0.10 | * | 0.10 | * | 0.10 | * | 0.10 | * |
| NT | 2 | 2 | 3400 | 3400 | 456 | 0 | 25 | 0.13 | | 0.13 | | 0.14 | | 0.14 | |
| NR | 1 | 1 | 1700 | 1700 | 167 | 0 | 0 | 0.10 | | 0.10 | | 0.10 | | 0.10 | |
| SL | 1 | 1 | 1700 | 1700 | 29 | 0 | 0 | 0.02 | | 0.02 | | 0.02 | | 0.02 | |
| ST | 2 | 2 | 3400 | 3400 | 496 | 0 | -5 | 0.15 | * | 0.15 | * | 0.14 | * | 0.14 | * |
| SR | 1 | 1 | 1700 | 1700 | 91 | 0 | 0 | 0.05 | | 0.05 | | 0.05 | | 0.05 | |
| EL | 1 | 1 | 1700 | 1700 | 117 | 0 | 0 | 0.07 | | 0.07 | | 0.07 | | 0.07 | |
| ET | 2 | 2 | 3400 | 3400 | 747 | 65 | 0 | 0.22 | * | 0.24 | * | 0.24 | * | 0.24 | * |
| ER | 1 | 1 | 1700 | 1700 | 170 | 0 | 0 | 0.10 | | 0.10 | | 0.10 | | 0.10 | |
| WL | 1 | 1 | 1700 | 1700 | 172 | 0 | 0 | 0.10 | * | 0.10 | * | 0.10 | * | 0.10 | * |
| WT | 2 | 2 | 3400 | 3400 | 333 | 30 | 0 | 0.10 | | 0.11 | | 0.11 | | 0.11 | |
| WR | 1 | 1 | 1700 | 1700 | 55 | 0 | 0 | 0.03 | | 0.03 | | 0.03 | | 0.03 | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.25 | 0.25 | 0.24 | 0.24 |
| EAST/WEST CRITICAL SUMS = | 0.32 | 0.34 | 0.34 | 0.34 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.62 | 0.64 | 0.63 | 0.63 |
| LOS = | B | B | B | B |

ICU SPREADSHEET FILE NAME | SG&W

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

## INTERSECTION CAPACITY UTILIZATION ANALYSIS

**PROJECT:** DOWNEY GENERAL PLAN
**INTERVAL:** AM PEAK HOUR
**INTERSECTION:** FIRESTONE BOULEVARD & PATTON ROAD (Mitigation)

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | VOLUME | VOLUME | EXST.+OTH +PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | | | 80 | 0.00 | * | 0.00 | * | 0.05 | * | 0.05 | * |
| NT | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| NR | 1 | 1 | 1700 | 1700 | | | 121 | 0.00 | | 0.00 | | 0.07 | | 0.07 | |
| SL | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | | | 0 | | * | | * | | * | | * |
| SR | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | | | 0 | | * | | * | | | | |
| ET | 2 | 2 | 3400 | 3400 | | | 836 | 0.00 | | 0.00 | | 0.27 | * | 0.27 | * |
| ER | 0 | 0 | 0 | 0 | | | 83 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | | | 246 | 0.00 | | 0.00 | | 0.14 | * | 0.14 | * |
| WT | 2 | 2 | 3400 | 3400 | | | 1067 | 0.00 | * | 0.00 | * | 0.31 | | 0.31 | |
| WR | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |

ICU SPREADSHEET FILE NAME: SIGP&F

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.00 | 0.00 | 0.05 | 0.05 |
| EAST/WEST CRITICAL SUMS = | 0.00 | 0.00 | 0.41 | 0.41 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.05 | 0.05 | 0.51 | 0.51 |
| LOS = | A | A | A | A |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: DOWNEY GENERAL PLAN
INTERVAL: PM PEAK HOUR
INTERSECTION: FIRESTONE BOULEVARD & PATTON ROAD (Mitigation)

| MOVEMENT | EXIST LANES | PROP LANES | EXISTING CAPACITY | PROPOSED CAPACITY | VOLUME | VOLUME | EXST.+OTH +PROJECT VOLUME | EXISTING V/C | | EXISTING + OTHER V/C | | EX.+OTHER +PROJECT V/C | | EX.+OTHER +PROJECT V/C-W_IMP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NL | 1 | 1 | 1700 | 1700 | | | 35 | 0.00 | * | 0.00 | * | 0.02 | * | 0.02 | * |
| NT | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| NR | 1 | 1 | 1700 | 1700 | | | 74 | 0.00 | | 0.00 | | 0.04 | | 0.04 | |
| SL | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| ST | 0 | 0 | 0 | 0 | | | 0 | | * | | * | | * | | * |
| SR | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |
| EL | 0 | 0 | 0 | 0 | | | 0 | | * | | * | | | | |
| ET | 2 | 2 | 3400 | 3400 | | | 1657 | 0.00 | | 0.00 | | 0.50 | * | 0.50 | * |
| ER | 0 | 0 | 0 | 0 | | | 33 | | | | | | | | |
| WL | 1 | 1 | 1700 | 1700 | | | 102 | 0.00 | | 0.00 | | 0.06 | * | 0.06 | * |
| WT | 2 | 2 | 3400 | 3400 | | | 802 | 0.00 | * | 0.00 | * | 0.24 | | 0.24 | |
| WR | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| NORTH/SOUTH CRITICAL SUMS = | 0.00 | 0.00 | 0.02 | 0.02 |
| EAST/WEST CRITICAL SUMS = | 0.00 | 0.00 | 0.56 | 0.56 |
| CLEARANCE = | 0.05 | 0.05 | 0.05 | 0.05 |
| ICU VALUE = | 0.05 | 0.05 | 0.63 | 0.63 |
| LOS = | A | A | B | B |

ICU SPREADSHEET FILE NAME | SIGP&F |

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

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1985 HCM:  UNSIGNALIZED INTERSECTIONS                                Page-1
***************************************************************************

IDENTIFYING INFORMATION
---------------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR....................  1

AREA POPULATION.....................  150000

NAME OF THE EAST/WEST STREET........ FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET...... PATTON ROAD

NAME OF THE ANALYST................. HD

DATE OF THE ANALYSIS (mm/dd/yy)..... 11-5-91

TIME PERIOD ANALYZED................ AM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)

INTERSECTION TYPE AND CONTROL
---------------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN

TRAFFIC VOLUMES
---------------------------------------------------------------------------

             EB     WB     NB     SB
            ----   ----   ----   ----
LEFT           0    246     80    --

THRU         836   1067      0    --

RIGHT         83      0    121    --

NUMBER OF LANES
---------------------------------------------------------------------------

                EB         WB         NB         SB
             -------    -------    -------    -------
LANES           2          2          2          --
```

```
ADJUSTMENT FACTORS                                                Page-2
--------------------------------------------------------------------------

           PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
            GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
           -------  ----------  ----------------  -----------------
EASTBOUND    0.00       90             20                 N

WESTBOUND    0.00       90             20                 N

NORTHBOUND   0.00       90             20                 N

SOUTHBOUND  -----      ---            ---                 -

VEHICLE COMPOSITION
--------------------------------------------------------------------------

               % SU TRUCKS   % COMBINATION
                AND RV'S       VEHICLES       % MOTORCYCLES
               -----------   -------------   -------------
EASTBOUND          0              0                0

WESTBOUND          0              0                0

NORTHBOUND         0              0                0

SOUTHBOUND        ---            ---              ---

CRITICAL GAPS
--------------------------------------------------------------------------

                 TABULAR VALUES   ADJUSTED   SIGHT DIST.      FINAL
                  (Table 10-2)     VALUE     ADJUSTMENT   CRITICAL GAP
                 --------------   --------   -----------  ------------
MINOR RIGHTS
            NB        5.70          5.70        0.00          5.70

MAJOR LEFTS
            WB        5.60          5.60        0.00          5.60

MINOR LEFTS
            NB        7.30          7.30        0.00          7.30

IDENTIFYING INFORMATION
--------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                      Page-3
--------------------------------------------------------------------------

                       POTEN-    ACTUAL
               FLOW-   TIAL      MOVEMENT     SHARED       RESERVE
               RATE    CAPACITY  CAPACITY     CAPACITY     CAPACITY
MOVEMENT       v(pcph) c (pcph)  c (pcph)     c  (pcph)    c = c  - v  LOS
                         p         M           SH           R   SH
               ------- --------  ---------  -----------  ------------ ---

MINOR STREET

  NB LEFT         88       66        20            20           -68    F
     RIGHT       133      625       625           625           492    A

MAJOR STREET

  WB LEFT        271      356       356           356            86    E


IDENTIFYING INFORMATION
--------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                              Page-1
*********************************************************************

IDENTIFYING INFORMATION
---------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR.....................  1

AREA POPULATION......................  150000

NAME OF THE EAST/WEST STREET......... FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET....... PATTON ROAD

NAME OF THE ANALYST.................. HD

DATE OF THE ANALYSIS (mm/dd/yy)...... 11-5-91

TIME PERIOD ANALYZED................. PM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)

INTERSECTION TYPE AND CONTROL
---------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN

TRAFFIC VOLUMES
---------------------------------------------------------------------

          EB     WB     NB     SB
         ----   ----   ----   ----
LEFT        0    102     35    --

THRU     1657    802      0    --

RIGHT      33      0     74    --

NUMBER OF LANES
---------------------------------------------------------------------

              EB         WB         NB         SB
            -------    -------    -------    -------
LANES         2          2          2          --
```

```
ADJUSTMENT FACTORS
---------------------------------------------------------------------------

            PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
             GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
            -------  ----------  ----------------  -----------------
EASTBOUND     0.00       90             20                 N

WESTBOUND     0.00       90             20                 N

NORTHBOUND    0.00       90             20                 N

SOUTHBOUND   -----      ---            ---                 -

VEHICLE COMPOSITION
---------------------------------------------------------------------------

              % SU TRUCKS   % COMBINATION
               AND RV'S       VEHICLES       % MOTORCYCLES
              -----------   -------------   --------------
EASTBOUND          0              0                0

WESTBOUND          0              0                0

NORTHBOUND         0              0                0

SOUTHBOUND        ---            ---              ---

CRITICAL GAPS
---------------------------------------------------------------------------

                  TABULAR VALUES   ADJUSTED   SIGHT DIST.       FINAL
                   (Table 10-2)      VALUE    ADJUSTMENT    CRITICAL GAP
                  --------------   --------   -----------   ------------
MINOR RIGHTS
            NB         5.70          5.70         0.00           5.70

MAJOR LEFTS
            WB         5.60          5.60         0.00           5.60

MINOR LEFTS
            NB         7.30          7.30         0.00           7.30

IDENTIFYING INFORMATION
---------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                  Page-3
---------------------------------------------------------------------

                     POTEN-    ACTUAL
             FLOW-   TIAL      MOVEMENT    SHARED      RESERVE
             RATE    CAPACITY  CAPACITY    CAPACITY    CAPACITY
MOVEMENT     v(pcph) c (pcph)  c (pcph)   c  (pcph)   c = c  - v  LOS
                      p         M          SH          R   SH
             ------- -------- --------- ----------- ----------- ---

MINOR STREET

  NB LEFT         39      66      16             16          -22    F
     RIGHT        81     380     380            380          298    C

MAJOR STREET

  WB LEFT        112     139     139            139           27    E



IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                          Page-1
*********************************************************************

IDENTIFYING INFORMATION
---------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR....................  1

AREA POPULATION.....................  150000

NAME OF THE EAST/WEST STREET........ FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET...... PATTON ROAD

NAME OF THE ANALYST................. HD

DATE OF THE ANALYSIS (mm/dd/yy)..... 11-5-91

TIME PERIOD ANALYZED................ AM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)

INTERSECTION TYPE AND CONTROL
---------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN

TRAFFIC VOLUMES
---------------------------------------------------------------------

            EB     WB     NB     SB
           ----   ----   ----   ----
LEFT          0    247     80    --

THRU       1036   1086      0    --

RIGHT        83      0    114    --

NUMBER OF LANES
---------------------------------------------------------------------

                EB         WB         NB         SB
             -------    -------    -------    -------
LANES           2          2          2          --
```

```
ADJUSTMENT FACTORS                                              Page-2
----------------------------------------------------------------------

           PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
            GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
           -------  ----------  ----------------  -----------------
EASTBOUND   0.00       90             20                  N

WESTBOUND   0.00       90             20                  N

NORTHBOUND  0.00       90             20                  N

SOUTHBOUND -----      ---            ---                  -

VEHICLE COMPOSITION
----------------------------------------------------------------------

             % SU TRUCKS   % COMBINATION
              AND RV'S       VEHICLES       % MOTORCYCLES
             -----------   -------------   --------------
EASTBOUND         0              0                0

WESTBOUND         0              0                0

NORTHBOUND        0              0                0

SOUTHBOUND       ---            ---              ---

CRITICAL GAPS
----------------------------------------------------------------------

               TABULAR VALUES   ADJUSTED   SIGHT DIST.       FINAL
               (Table 10-2)      VALUE     ADJUSTMENT    CRITICAL GAP
               -------------   --------    -----------   ------------
MINOR RIGHTS
           NB       5.70          5.70         0.00           5.70

MAJOR LEFTS
           WB       5.60          5.60         0.00           5.60

MINOR LEFTS
           NB       7.30          7.30         0.00           7.30

IDENTIFYING INFORMATION
----------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                      Page-3
--------------------------------------------------------------------------

                       POTEN-    ACTUAL
               FLOW-   TIAL      MOVEMENT     SHARED       RESERVE
               RATE    CAPACITY  CAPACITY     CAPACITY     CAPACITY
MOVEMENT       v(pcph) c (pcph)  c (pcph)   c  (pcph)     c = c  - v  LOS
                         p        M          SH            R   SH
               ------- -------- --------- ------------ ------------ ---

MINOR STREET

  NB LEFT        88       66        1             1          -87     F
     RIGHT      125      554      554           554          429     A

MAJOR STREET

  WB LEFT       272      275      275           275            3     E


IDENTIFYING INFORMATION
--------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                              Page-1
**********************************************************************
IDENTIFYING INFORMATION
----------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR.....................  1

AREA POPULATION......................  150000

NAME OF THE EAST/WEST STREET......... FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET....... PATTON ROAD

NAME OF THE ANALYST.................. HD

DATE OF THE ANALYSIS (mm/dd/yy)...... 11-5-91

TIME PERIOD ANALYZED................. PM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)

INTERSECTION TYPE AND CONTROL
----------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN

TRAFFIC VOLUMES
----------------------------------------------------------------------

            EB      WB     NB      SB
           ----    ----   ----    ----
LEFT          0     109     35     --

THRU       1777     917      0     --

RIGHT        33       0     84     --

NUMBER OF LANES
----------------------------------------------------------------------

                EB         WB         NB         SB
              -------    -------    -------    -------
LANES            2          2          2          --
```

```
ADJUSTMENT FACTORS                                                  Page-2
---------------------------------------------------------------------------

              PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
               GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
              -------  ----------  ----------------  -----------------
EASTBOUND      0.00        90             20                 N

WESTBOUND      0.00        90             20                 N

NORTHBOUND     0.00        90             20                 N

SOUTHBOUND    -----       ---            ---                 -

VEHICLE COMPOSITION
---------------------------------------------------------------------------

                % SU TRUCKS   % COMBINATION
                  AND RV'S       VEHICLES       % MOTORCYCLES
                -----------   -------------   -------------
EASTBOUND            0              0               0

WESTBOUND            0              0               0

NORTHBOUND           0              0               0

SOUTHBOUND          ---            ---             ---

CRITICAL GAPS
---------------------------------------------------------------------------

                  TABULAR VALUES   ADJUSTED   SIGHT DIST.      FINAL
                   (Table 10-2)     VALUE     ADJUSTMENT    CRITICAL GAP
                  --------------   --------   -----------   ------------
MINOR RIGHTS
            NB         5.70          5.70         0.00          5.70

MAJOR LEFTS
            WB         5.60          5.60         0.00          5.60

MINOR LEFTS
            NB         7.30          7.30         0.00          7.30

IDENTIFYING INFORMATION
---------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                  Page-3
---------------------------------------------------------------------

                     POTEN-    ACTUAL
             FLOW-   TIAL      MOVEMENT    SHARED      RESERVE
             RATE    CAPACITY  CAPACITY    CAPACITY    CAPACITY
MOVEMENT     v(pcph) c (pcph)  c (pcph)   c  (pcph)   c = c   - v LOS
                      p         M          SH          R   SH
             ------- -------- --------- ------------ ------------ ---

MINOR STREET

  NB LEFT        39       66      12             12          -26    F
     RIGHT       92      351     351            351          259    C

MAJOR STREET

  WB LEFT       120      139     139            139           19    E


IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 1)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                              Page-1
*********************************************************************

IDENTIFYING INFORMATION
---------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR.....................  1

AREA POPULATION......................  150000

NAME OF THE EAST/WEST STREET........ FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET...... PATTON ROAD

NAME OF THE ANALYST................. HD

DATE OF THE ANALYSIS (mm/dd/yy)..... 11-5-91

TIME PERIOD ANALYZED................ AM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)

INTERSECTION TYPE AND CONTROL
---------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN


TRAFFIC VOLUMES
---------------------------------------------------------------------

           EB     WB     NB     SB
          ----   ----   ----   ----
LEFT        0     245     80     --

THRU      910    1090      0     --

RIGHT      83       0    100     --


NUMBER OF LANES
---------------------------------------------------------------------

               EB         WB         NB         SB
             -------    -------    -------    -------
LANES           2          2          2          --
```

```
ADJUSTMENT FACTORS
--------------------------------------------------------------------

           PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
             GRADE    ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
           -------  ----------  ----------------  -----------------
EASTBOUND    0.00        90             20              N

WESTBOUND    0.00        90             20              N

NORTHBOUND   0.00        90             20              N

SOUTHBOUND  -----       ---            ---              -

VEHICLE COMPOSITION
--------------------------------------------------------------------

             % SU TRUCKS   % COMBINATION
               AND RV'S      VEHICLES      % MOTORCYCLES
             -----------   -------------   -------------
EASTBOUND          0              0               0

WESTBOUND          0              0               0

NORTHBOUND         0              0               0

SOUTHBOUND       ---             ---           ---

CRITICAL GAPS
--------------------------------------------------------------------

               TABULAR VALUES   ADJUSTED   SIGHT DIST.      FINAL
                (Table 10-2)     VALUE     ADJUSTMENT    CRITICAL GAP
               --------------   --------   -----------  ------------
MINOR RIGHTS
            NB       5.70         5.70        0.00         5.70

MAJOR LEFTS
            WB       5.60         5.60        0.00         5.60

MINOR LEFTS
            NB       7.30         7.30        0.00         7.30

IDENTIFYING INFORMATION
--------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                  Page-3
---------------------------------------------------------------------

                     POTEN-    ACTUAL
             FLOW-   TIAL      MOVEMENT    SHARED      RESERVE
             RATE    CAPACITY  CAPACITY    CAPACITY    CAPACITY
MOVEMENT     v(pcph) c (pcph)  c (pcph)   c  (pcph)   c = c  - v  LOS
                      p         M          SH          R   SH
             ------- -------- --------- ------------ ------------ ---

MINOR STREET

  NB LEFT        88        66     14             14          -74    F
     RIGHT      110       599    599            599          489    A

MAJOR STREET

  WB LEFT       270       321    321            321           52    E


IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                              Page-1
**********************************************************************
IDENTIFYING INFORMATION
----------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR....................  1

AREA POPULATION.....................  150000

NAME OF THE EAST/WEST STREET........ FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET....... PATTON ROAD

NAME OF THE ANALYST................. HD

DATE OF THE ANALYSIS (mm/dd/yy)...... 11-5-91

TIME PERIOD ANALYZED................ PM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)

INTERSECTION TYPE AND CONTROL
----------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE NORTHBOUND: STOP SIGN

TRAFFIC VOLUMES
----------------------------------------------------------------------

          EB     WB     NB     SB
         ----   ----   ----   ----
LEFT        0    100     35    --

THRU     1552    747      0    --

RIGHT      33      0     72    --

NUMBER OF LANES
----------------------------------------------------------------------

              EB        WB        NB        SB
            -------   -------   -------   -------
LANES          2         2         2        --
```

```
ADJUSTMENT FACTORS
------------------------------------------------------------------------

           PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
            GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
           -------  ----------  ----------------  -----------------
EASTBOUND    0.00       90             20                 N

WESTBOUND    0.00       90             20                 N

NORTHBOUND   0.00       90             20                 N

SOUTHBOUND  -----      ---            ---                 -

VEHICLE COMPOSITION
------------------------------------------------------------------------

              % SU TRUCKS   % COMBINATION
                AND RV'S      VEHICLES      % MOTORCYCLES
              -----------   -------------   -------------
EASTBOUND           0             0                0

WESTBOUND           0             0                0

NORTHBOUND          0             0                0

SOUTHBOUND         ---           ---              ---

CRITICAL GAPS
------------------------------------------------------------------------

                TABULAR VALUES  ADJUSTED   SIGHT DIST.      FINAL
                 (Table 10-2)     VALUE    ADJUSTMENT    CRITICAL GAP
                --------------  --------   -----------   ------------
MINOR RIGHTS
            NB       5.70          5.70        0.00           5.70

MAJOR LEFTS
            WB       5.60          5.60        0.00           5.60

MINOR LEFTS
            NB       7.30          7.30        0.00           7.30

IDENTIFYING INFORMATION
------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                   Page-3
-----------------------------------------------------------------------

                      POTEN-    ACTUAL
            FLOW-     TIAL      MOVEMENT    SHARED        RESERVE
            RATE      CAPACITY  CAPACITY    CAPACITY      CAPACITY
MOVEMENT    v(pcph) c (pcph)  c (pcph)   c  (pcph)    c = c  - v  LOS
                      p         M           SH            R   SH
            ------- -------- --------- ------------ ------------ ---

MINOR STREET

  NB LEFT        39       66     19              19          -20   F
     RIGHT       79      406    406             406          326   B

MAJOR STREET

  WB LEFT       110      142    142             142           32   E


IDENTIFYING INFORMATION
-----------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... PATTON ROAD
DATE AND TIME OF THE ANALYSIS..... 11-5-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (ALTERNATIVE 2)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                              Page-1
*************************************************************************

IDENTIFYING INFORMATION
-------------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR.....................  1

AREA POPULATION......................  150000

NAME OF THE EAST/WEST STREET......... FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET....... MARBEL AVENUE

NAME OF THE ANALYST.................. HD

DATE OF THE ANALYSIS (mm/dd/yy)...... 11-4-91

TIME PERIOD ANALYZED................. AM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)

INTERSECTION TYPE AND CONTROL
-------------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

TRAFFIC VOLUMES
-------------------------------------------------------------------------

              EB     WB     NB     SB
             ----   ----   ----   ----
LEFT            7      0     --     10

THRU          713   1537     --      0

RIGHT           0      5     --     18

NUMBER OF LANES
-------------------------------------------------------------------------

                  EB        WB        NB        SB
               -------   -------   -------   -------
LANES             2         2         --        2
```

```
ADJUSTMENT FACTORS                                             Page-2
---------------------------------------------------------------------

           PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
            GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
           -------  ----------  ----------------  -----------------
EASTBOUND    0.00       90            20                 N

WESTBOUND    0.00       90            20                 N

NORTHBOUND  -----      ---           ---                 -

SOUTHBOUND   0.00       90            20                 N

VEHICLE COMPOSITION
---------------------------------------------------------------------

             % SU TRUCKS   % COMBINATION
               AND RV'S      VEHICLES      % MOTORCYCLES
             -----------   -------------   -------------
EASTBOUND          0              0               0

WESTBOUND          0              0               0

NORTHBOUND       ---            ---             ---

SOUTHBOUND         0              0               0

CRITICAL GAPS
---------------------------------------------------------------------

               TABULAR VALUES   ADJUSTED   SIGHT DIST.      FINAL
                (Table 10-2)      VALUE    ADJUSTMENT    CRITICAL GAP
               --------------   --------   -----------   ------------
MINOR RIGHTS
            SB      5.70          5.70        0.00           5.70

MAJOR LEFTS
            EB      5.60          5.60        0.00           5.60

MINOR LEFTS
            SB      7.30          7.30        0.00           7.30

IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... MARBEL AVENUE
DATE AND TIME OF THE ANALYSIS..... 11-4-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                  Page-3
---------------------------------------------------------------------

                     POTEN-    ACTUAL
             FLOW-   TIAL      MOVEMENT    SHARED      RESERVE
             RATE    CAPACITY  CAPACITY    CAPACITY    CAPACITY
MOVEMENT     v(pcph) c (pcph)  c (pcph)   c  (pcph)   c = c  - v LOS
                      p         M          SH          R   SH
             ------- -------- --------- ------------ ------------- ---

MINOR STREET

  SB LEFT         11       66       64             64           53   E
     RIGHT        20      419      419            419          399   B

MAJOR STREET

  EB LEFT          8      152      152            152          144   D


IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... MARBEL AVENUE
DATE AND TIME OF THE ANALYSIS..... 11-4-91 ; AM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
1985 HCM:  UNSIGNALIZED INTERSECTIONS                          Page-1
*********************************************************************
IDENTIFYING INFORMATION
---------------------------------------------------------------------

AVERAGE RUNNING SPEED, MAJOR STREET..  35

PEAK HOUR FACTOR.....................  1

AREA POPULATION......................  150000

NAME OF THE EAST/WEST STREET......... FIRESTONE BOULEVARD

NAME OF THE NORTH/SOUTH STREET....... MARBEL AVENUE

NAME OF THE ANALYST.................. HD

DATE OF THE ANALYSIS (mm/dd/yy)...... 11-4-91

TIME PERIOD ANALYZED................. PM PEAK HOUR

OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)

INTERSECTION TYPE AND CONTROL
---------------------------------------------------------------------

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

TRAFFIC VOLUMES
---------------------------------------------------------------------

             EB     WB     NB     SB
            ----   ----   ----   ----
LEFT          11      0    --      6

THRU        1876   1175    --      0

RIGHT          0     11    --     27

NUMBER OF LANES
---------------------------------------------------------------------

                 EB        WB        NB        SB
               -------   -------   -------   -------
LANES             2         2         --        2
```

```
ADJUSTMENT FACTORS                                                  Page-2
--------------------------------------------------------------------------

                PERCENT  RIGHT TURN  CURB RADIUS (ft)  ACCELERATION LANE
                 GRADE     ANGLE     FOR RIGHT TURNS    FOR RIGHT TURNS
                -------  ----------  ---------------   -----------------
EASTBOUND        0.00        90             20                 N

WESTBOUND        0.00        90             20                 N

NORTHBOUND      -----       ---            ---                 -

SOUTHBOUND       0.00        90             20                 N

VEHICLE COMPOSITION
--------------------------------------------------------------------------

                  % SU TRUCKS   % COMBINATION
                   AND RV'S       VEHICLES       % MOTORCYCLES
                  -----------   -------------    -------------
EASTBOUND              0              0                0

WESTBOUND              0              0                0

NORTHBOUND          ---            ---              ---

SOUTHBOUND             0              0                0

CRITICAL GAPS
--------------------------------------------------------------------------

                    TABULAR VALUES   ADJUSTED   SIGHT DIST.      FINAL
                     (Table 10-2)     VALUE     ADJUSTMENT    CRITICAL GAP
                    --------------   --------   ----------    ------------
MINOR RIGHTS
            SB           5.70          5.70        0.00           5.70

MAJOR LEFTS
            EB           5.60          5.60        0.00           5.60

MINOR LEFTS
            SB           7.30          7.30        0.00           7.30

IDENTIFYING INFORMATION
--------------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... MARBEL AVENUE
DATE AND TIME OF THE ANALYSIS..... 11-4-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

```
CAPACITY AND LEVEL-OF-SERVICE                                  Page-3
---------------------------------------------------------------------

                     POTEN-    ACTUAL
             FLOW-   TIAL      MOVEMENT    SHARED      RESERVE
             RATE    CAPACITY  CAPACITY    CAPACITY    CAPACITY
MOVEMENT     v(pcph) c (pcph)  c (pcph)   c  (pcph)   c = c  - v  LOS
                      p         M          SH          R   SH
             ------- -------- --------- ------------ ------------ ---

MINOR STREET

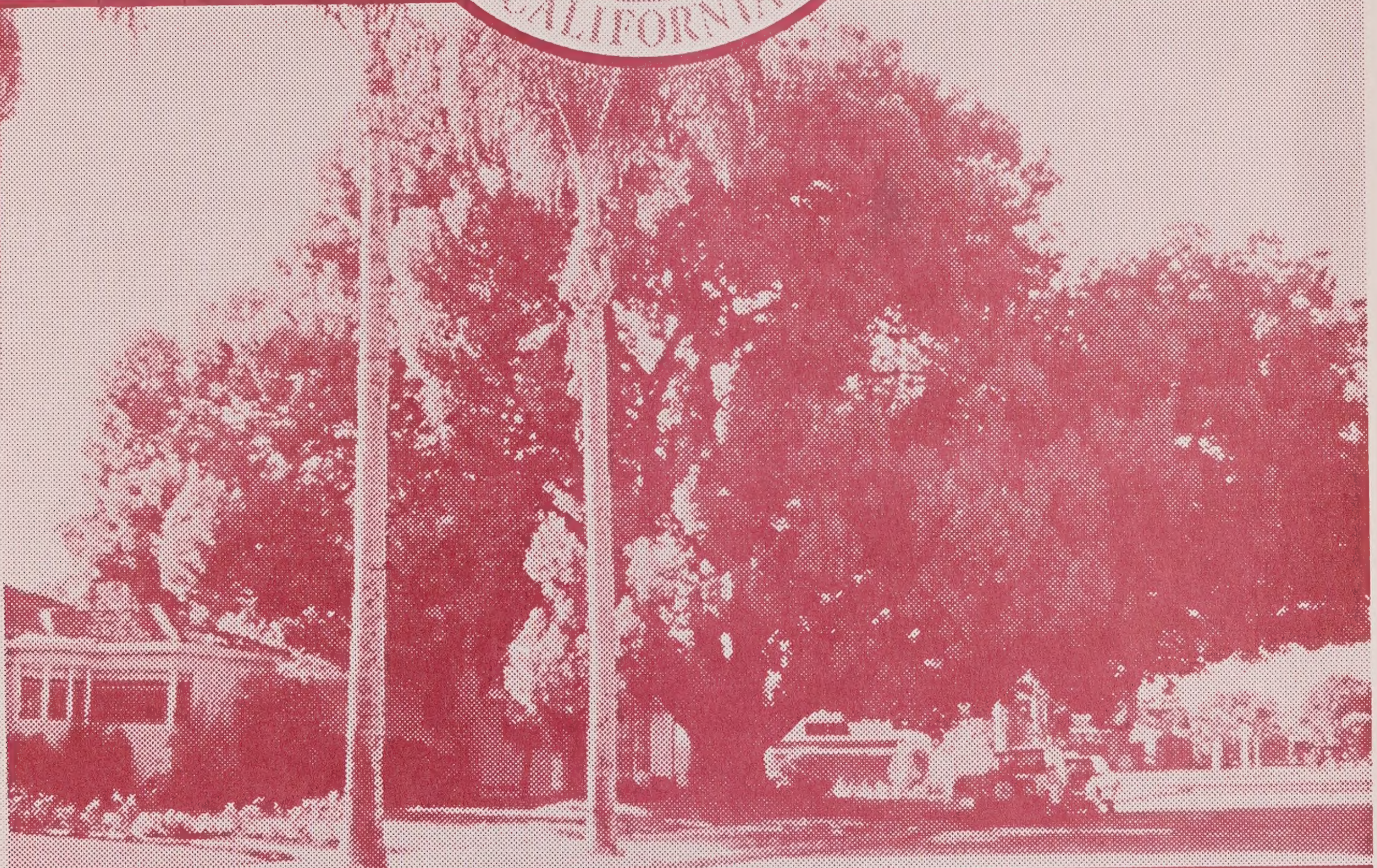
  SB LEFT         7       66      64             64           57  E
     RIGHT       30      530     530            530          500  A

MAJOR STREET

  EB LEFT        12      250     250            250          238  C


IDENTIFYING INFORMATION
---------------------------------------------------------------------
NAME OF THE EAST/WEST STREET...... FIRESTONE BOULEVARD
NAME OF THE NORTH/SOUTH STREET.... MARBEL AVENUE
DATE AND TIME OF THE ANALYSIS..... 11-4-91 ; PM PEAK HOUR
OTHER INFORMATION.... EXISTING+OTHER+PROJECT (SPECIFIC PLAN 30%)
```

# DOWNEY
## GENERAL PLAN



# CONSERVATION
# CHAPTER

# CONSERVATION CHAPTER

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APPENDIX A

## CONSERVATION

## INTRODUCTION

As California's population increases, its natural resources become more limited. Consequently, the State has made conservation of natural resources a priority and requires every general plan to have a conservation chapter (65302{d}). As part of the Southern California sprawl, Downey is affected by state and regional conservation issues. They include limited water supply, limited landfill capacity and tree preservation.

A city within a large urban region, Downey has few rare or endangered plants and animal species. The soils do not contain significant amounts of mineral resources. There are no designated mineral resource areas in the City. The ground water is tapped for urban uses and solid waste generated within the city is hauled away to regional landfills. Mature trees are removed for new construction and not replaced with similar trees. Yet, with good management, Downey's resources and those of the Southern California region can be preserved and maintained.

## CONSERVATION ISSUES

### WATER RESOURCES

**Issue One**

Future development in the city is directly related to availability of water.

**Issue Two**

The City Public Works Department needs to implement conservation measures since it is one of the largest water consumers in the City.

**Issue Three**

There is a limited amount of water available to Southern California.

### BIOLOGICAL RESOURCES

**Issue Four**

There are significant mature trees throughout Downey that contribute to the quality of life in Downey.

**Issue Five**

Downey needs a street tree program.

### SOLID WASTE DISPOSAL

**Issue Six**

The state requires cities to reduce solid waste by 25% by 1995 and 50% by the year 2000.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address conservation issues in the City of Downey.

### Goals

Conserve and utilize our water resources.

Preserve and maintain the quality of trees.

Reduce the amount of material disposed of at landfills.

## WATER RESOURCES

- **Issue One**

Future development in the city is directly related to availability of water.

**Policies**

4.1.1 The City will continue to encourage the conservation of water through the water bill process;

4.1.2 Information shall be made available to users regarding conservation methods.

**Programs**

The City shall:

4.1.1.1 Require high water users to implement water conservation measures;

4.1.1.2 Reassess water rates and up-grade metering to encourage water conservation;

4.1.1.3 Impose higher rates for high water users to reduce peak hour demand;

4.1.2.1 Support State and Federal efforts to protect the groundwater;

4.1.2.2 Cooperate and implement policies of the Central Basin to assure groundwater quality;

4.1.2.3 Participate in detailed Water Quality study from Central Basin;

4.1.2.4 Continue monitoring City wells related to contamination;

4.1.2.5 Discourage land use classes that contribute to ground water contamination.

- **Issue Two**

The City Public Works Department needs to implement conservation measures since it is one of the largest water consumers in the City.

**Policies**

4.2.1 The City shall examine the feasibility of a reclaimed water system to support fire service; and shall evaluate and participate in the use of reclaimed water for irrigation of public areas and industrial uses;

4.2.2 City facilities shall be designed to conserve water.

**Programs**

The City shall:

4.2.1.1 Evaluate the feasibility of using reclaimed water for fire protection;

4.2.1.2 Offer reclaimed water to high water industrial users;

4.2.1.3 Use reclaimed water for the golf courses and public parks;

4.2.1.4 Examine the feasibility of designing city facilities to conserve water.

4.2.2.1 Water public open spaces during off-peak hours;

4.2.2.2 Use drought tolerant plant material in public open spaces;

4.2.2.3 Develop a capital improvement program with provisions for the repair and replacement of older water mains throughout the city, including park irrigation systems;

- **Issue Three**

There is a limited amount of water available to Southern California.

**Policies**

4.3.1 The City shall develop standards for water conserving plumbing fixtures in all new construction;

4.3.2 The City shall require water conserving appliances and fixtures in all commercial or industrial developments;

4.3.3 The City shall implement a public information program pertaining to water conservation and recycling issues;

4.3.4 The City will consider incentive programs for commercial and industrial operations that conserve water.

**Programs**

The City shall:

4.3.1.1 Require the installation of water conservation devices, such as but not limited to: flow control type faucets and shower heads, toilets and urinals, in all new construction and major renovations;

4.3.2.1 Require water conservation devices in new commercial air conditioners;

4.3.3.1 Promote water conservation techniques by citizens;

4.3.3.2 Develop school education programs with written material regarding the importance of water conservation in the home;

4.3.3.3 Encourage the use of "drip irrigation" systems rather than conventional agricultural irrigation systems;

4.3.3.4 Develop a plan describing drought resistant plant that may be used in landscaping in various areas;

4.3.4.1 Continue to offer financial incentives to those who conserve water, such as requiring higher rates for those who do not conserve water.

- **Issue Four**

There are significant mature trees throughout Downey that contribute to the quality of life in the city.

**Policies**

4.4.1 Significant and mature public and private trees shall be inventoried;

4.4.2 The City should develop a policy for the protection, replacement and preservation of public and private mature specimen trees.

**Programs**

The City shall:

4.4.1.1 Inventory public and private trees in Downey;

4.4.2.1 Adopt an ordinance which may require a permit to remove significant trees on public and private property, and if removed, require that they be replaced with comparable trees;

4.4.2.2 Require that significant mature trees, both public and private, be identified and maintained;

4.4.2.3 Continue to support volunteer efforts to plant new trees.

- **Issue Five**

Downey needs a street tree program.

**Policy**

4.5.1 The City shall develop a policy for planting, removal, replacement and maintenance of trees in street parkways and on public property under City control.

**Programs**

The City shall:

4.5.1.1 Inventory and maintain existing street trees and develop a program for planting and replacement;

4.5.1.2 Develop a Master Tree Program by specie and street.

4.5.1.3 Develop a street tree fund for new trees, tree replacement and planting of same, for the historic downtown area and major arterials.

- **Issue Six**

The state requires cities to reduce solid waste by 25% by 1995 and 50% by the year 2000.

**Policy**

4.6.1 The City shall require recycling in residential, commercial and industrial areas of the city.

**Programs**

The City shall:

4.6.1.1 Provide information to citizens about recycling and the need to recycle waste;

4.6.1.2 Require residences and businesses to recycle solid waste;

4.6.1.3 Expand the recycling program to include state mandated products;

4.6.1.4 Adopt a source reduction and recycling plan .

4.6.1.5 Require new development to provide adequate on-site storage areas for collecting recyclable materials.

## I. WATER RESOURCES[1]

Background

Downey is served by four different water suppliers (Exhibit 4.1). The City Municipal Water Department service area currently includes over 95% of the city. The remaining area is served by the City of Santa Fe Springs, Southern California Water Company and the County of Los Angeles.

- **Water Supply and Demand**

Future development in Downey may be directly related to the availability of water. Eighty five percent of the water used in the City of Downey is pumped from the Central Groundwater Basin. The remaining 15% is purchased from the Metropolitan Water District (MWD).

The city presently has an Allowed Pumping Allocation (APA) of 15,316.12 acre-feet[2] per year from the Central Basin. The Central Basin stores water in underground aquifers (Exhibit 4.2) and pumps it out as needed. Ground water levels in the aquifers are maintained by the Water Replenishment District of Southern California. They purchase imported and reclaimed water for injection and spreading into the groundwater basin.

The city uses more water than its allowed pumping allocation, and depends on MWD to supplement the water supply. MWD limits the supply that can be drawn off in any one 24 hour period. This is to prevent agencies from "peaking off" of MWD during peak hour demand. Since Downey is not an entitlement city, the City of Los Angeles may take all of its water from MWD, reducing or eliminating Downey's supplemental water supply.

Downey's water supply is affected by high water users and by existing wells taken out of use because of groundwater contamination or mechanical breakdown. The existing land uses within the Downey municipal water system area are shown in Table 4-1. A water duty factor [3]is applied to each land use to obtain projected annual water requirements for the city.

---

[1] Information in this section was obtained from The City of Downey Water System Master Plan Evaluation, James M. Montgomery Consulting Engineer, August, 1988.

[2] An acre-foot of water is the volume of water that would cover one acre to a depth of one foot. One acre-foot is approximately 325,900 gallons of water.

[3] "Water duty factor" is the amount of water used in acre-feet per acre per year for each specific kind of land use. The water duty factor used for Downey is based on a detailed residential water duty study performed in the San Gabriel Valley for a community that has similar social-economic and climatic conditions to that of Downey. (Montgomery Water Study, 1988, page 3-4).

## TABLE 4-1
## WATER REQUIREMENTS OF MUNICIPAL SERVICE AREA

| Land Use Category | # acres, existing | Water Duty (AF/AC/YR) | Water Requirements (AF/YEAR) |
|---|---|---|---|
| Residential | | | |
| Single & Two Family | 3,254 | 2.50 | 8,135 |
| Multi-Family | 430 | 4.00 | 1,720 |
| Commercial | 535 | 2.50 | 1,338 |
| Industrial | | | |
| Light Industrial | 179 | 1.50 | 269 |
| Heavy Industrial | 350 | 3.50 | 1,225 |
| Public | | | |
| Parks | 82 | 2.00 | 164 |
| Golf Courses | 100 | 3.00 | 300 |
| County | 371 | 1.50 | 557 |
| Schools | 281 | 1.70 | 478 |
| Cemetery | 7 | 3.00 | 21 |
| Freeway | 65 | 0 | 0 |
| TOTAL | 5,654 | | 14,207 |

If the water conservation policies in this chapter are adopted, water consumption figures for public use will be significantly reduced.

The projected annual water requirements for the areas served by the three other companies are shown in Table 4-2. Each supplier's area is categorized into land uses and a water duty factor has been applied to obtain the requirements of each area. The City does not anticipate annexing these areas into the Municipal Water District, although Downey provides water to Wilderness Park, the Edison Right-of-Way and the CalTrans facility on Florence Avenue at the Santa Ana Freeway. These facilities are in the Southern California Water Company area. In 1989 Downey agreed to supply water to Rancho Business Park, the 120 acre site south of Imperial Highway. To do this, the city obtained water rights from Los Angeles County.

# TABLE 4-2
# WATER REQUIREMENTS OF AREAS SERVED BY OTHERS[4]

| Land Use Category | # acres, existing | Water Duty (AF/AC/YR) | Water Requirements (AF/YR) |
|---|---|---|---|
| City of Santa Fe Springs | | | |
| Residential, SF | | | |
| Commercial | 93 | 2.50 | 233 |
| Freeway | 39 | 2.50 | 98 |
| Subtotal | 30 | 0 | 0 |
| | 150 | | 331 |
| So. California Water Co. | | | |
| Residential, SF | | | |
| Parks | 21 | 2.50 | 53 |
| Flood Control | 24 | 2.00 | 48 |
| Channels | 63 | 0 | 0 |
| Subtotal | | | |
| | 108 | | 101 |
| L. A. County | | | |
| Golf Courses | 130 | 3.00 | 390 |
| Hospital | 53 | 1.50 | 80 |
| Subtotal | 217 | | 470 |
| TOTAL | 475 | N/A | 902 |

---

[4] Source: Montgomery Water Study, 1988 & Greg Mayfield, Water Superintendent, Downey Water District

## High Water Users

TABLE 4-3

| 1989 High Water Users | 12 month consumption in gallons | % |
|---|---|---|
| Coca Cola Bottling Co. | 151,971,908 | 22.3 |
| City of Downey | 145,890,668 | 21.4 |
| Downey Unified School District | 141,344,369 | 20.7 |
| Rockwell International | 166,248,296 | 17.0 |
| Ankirk Apartment Complex | 31,516,980 | 4.6 |
| National Seal | 30,076,332 | 4.4 |
| Alpase, Inc. | 24,318,228 | 3.6 |
| County of Los Angeles | 21,128,756 | 3.1 |
| Downey Community Hospital | 20,002,268 | 2.9 |

Since Downey is presently exceeding its groundwater allocation and MWD has the right to reduce or eliminate Downey's supply, the number of high water users should be restricted or discouraged. Existing high water users are encouraged to conserve water. The City has restructured water bills to encourage conservation. Water bills now discourage excessive water use by charging higher fees above a baseline amount and thus encourage conservation by lowering fees when water use decreases.

## Water Contamination

To prevent continuing groundwater contamination, land use classes that contribute to contamination should be discouraged. The Downey municipal water system currently operates 27 wells. Well #3 was abandoned due to the collapse of the casing and wells 17, 19, 20, and 21 were taken out of domestic service due to high concentrations of tetrachloroethylene (PCE), a volatile carcinogenic organic substance. It is used as a solvent, heat transfer medium and in the manufacture of fluorocarbons.

In late 1989, the PCE level in two of the wells had dropped to an acceptable level and they were back in service with the approval of the State Health Department. In one well the contamination level had decreased to the point where no contamination was detected. Another of the four wells is used solely for irrigating Rio Hondo Golf Course. Tests indicate that the level of contamination at this well is also decreasing (Exhibit 4.3).

- **The City's Water Consumption**

Downey's public works department needs to implement conservation measures since it is one of the largest water consumers. As shown in Table 4-3, the city is the second highest water user. It uses water in public buildings, such as City Hall, the Library and the Theater, and in maintaining open space areas. These include the public parks, street medians and the golf course. To reduce consumption of fresh water and to reduce Downey's dependence on MWD, the City is planning to purchase reclaimed water for landscape irrigation.

Repair and Maintenance

The City has replaced mains to decrease leakage and by this method has reduced unaccountable water usage to less than 5% in the last few years. The City will continue this water conservation program. The City should also replace park irrigation systems with newer, water conserving devices.

Reclaimed water

Reclaimed water can be used for irrigation. The City has studied the use of such water. The study indicates that it is feasible and economical to utilize about 1500 acre feet of reclaimed water per year. The City should evaluate the possibility of using reclaimed water for fire protection.

Water reclamation consists of a three stage cycle (Exhibit 4.4). Primary treatment wastewater is flowed through a settling tank where heavy solids settle to the bottom, and lighter materials such as plastic and grease float to the top. These materials, called primary sludge, are returned to the sewer to be treated at a water pollution control plant. The remaining dissolved and suspended materials are then sent to secondary treatment.

Secondary treatment is the stage of treated water used for landscape irrigation. This is the stage known as reclaimed water. It is based on the natural process of bacterial degradation of dissolved organic materials. Bacteria are supplied with oxygen, allowing them to further break down dissolved materials. Once they have consumed the waste material, the bacteria are carried into a secondary settling tank where they clump and settle to the bottom for removal. Most bacteria are put back into the system. Any excess bacteria, called waste activated sludge, are sent back to the sewer along with the primary sludge for treatment at the water pollution control plant.

Tertiary treatment is the final step for treating wastewater. A filter containing anthracite coal, sand, and gravel remove small particles suspended in the water. The filtered effluent is pumped into chlorination tanks to kill any harmful organisms. Following disinfection, any remaining chlorine is removed to protect all marine life in the receiving environment. Water that has been through all three stages is considered safe to drink.

*An acre of lawn needs more than 27,000 gallons of water every week.*

# Legend

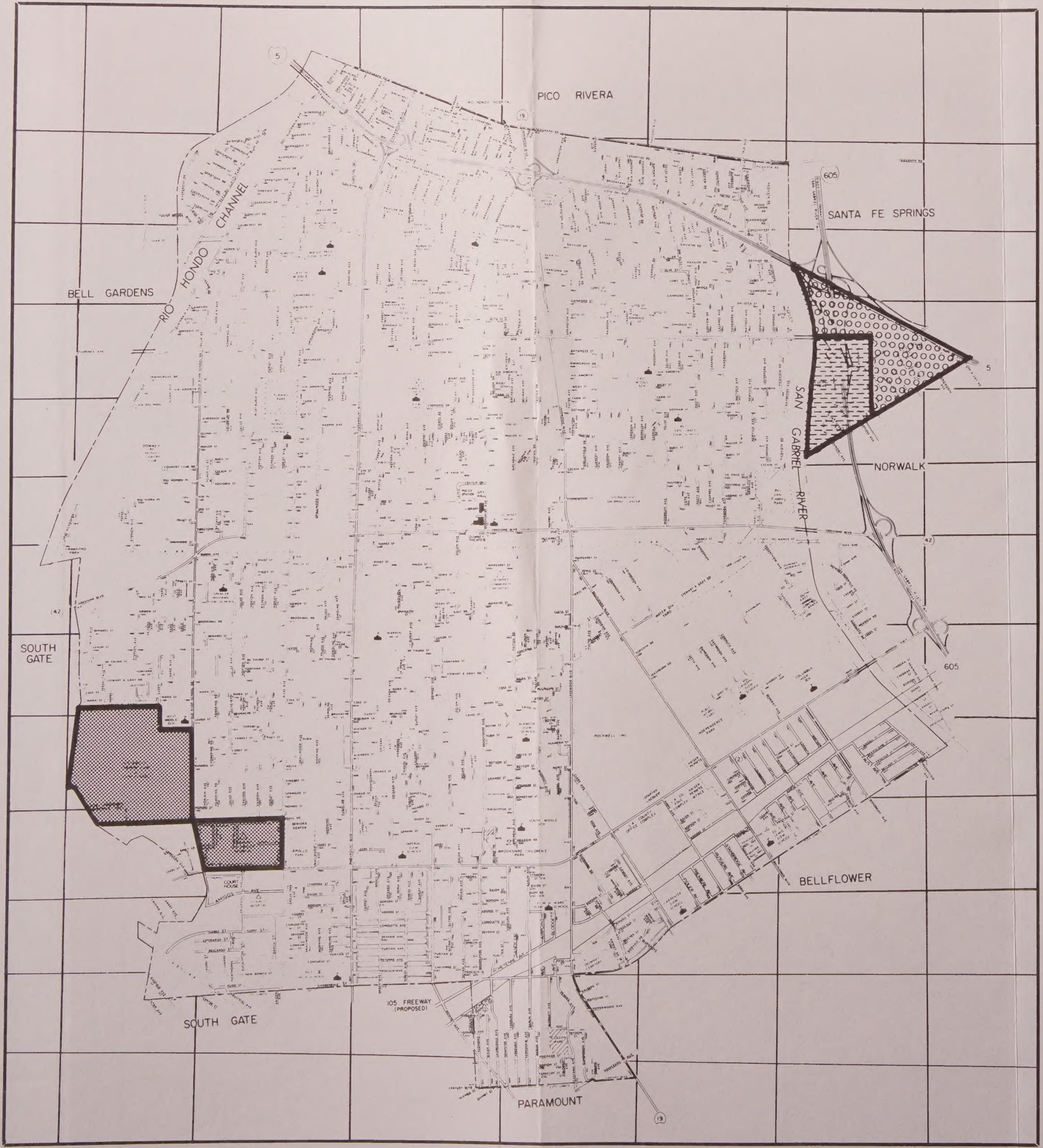
☐ **DOWNEY MUNICIPAL WATER DISTRICT**

▩ **LOS ANGELES COUNTY WATER DISTRICT**

○ **CITY OF SANTA FE SPRINGS**

▤ **SOUTHERN CALIFORNIA WATER COMPANY**

**SOURCE: City of Downey**



5
PICO RIVERA
19
605
SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
5
SAN GABRIEL RIVER
NORWALK
42
42
SOUTH GATE
605
BELLFLOWER
SOUTH GATE
105 FREEWAY (PROPOSED)
PARAMOUNT
19

# Water Companies

## Exhibit IV-1

## Conservation Chapter

Not to scale.

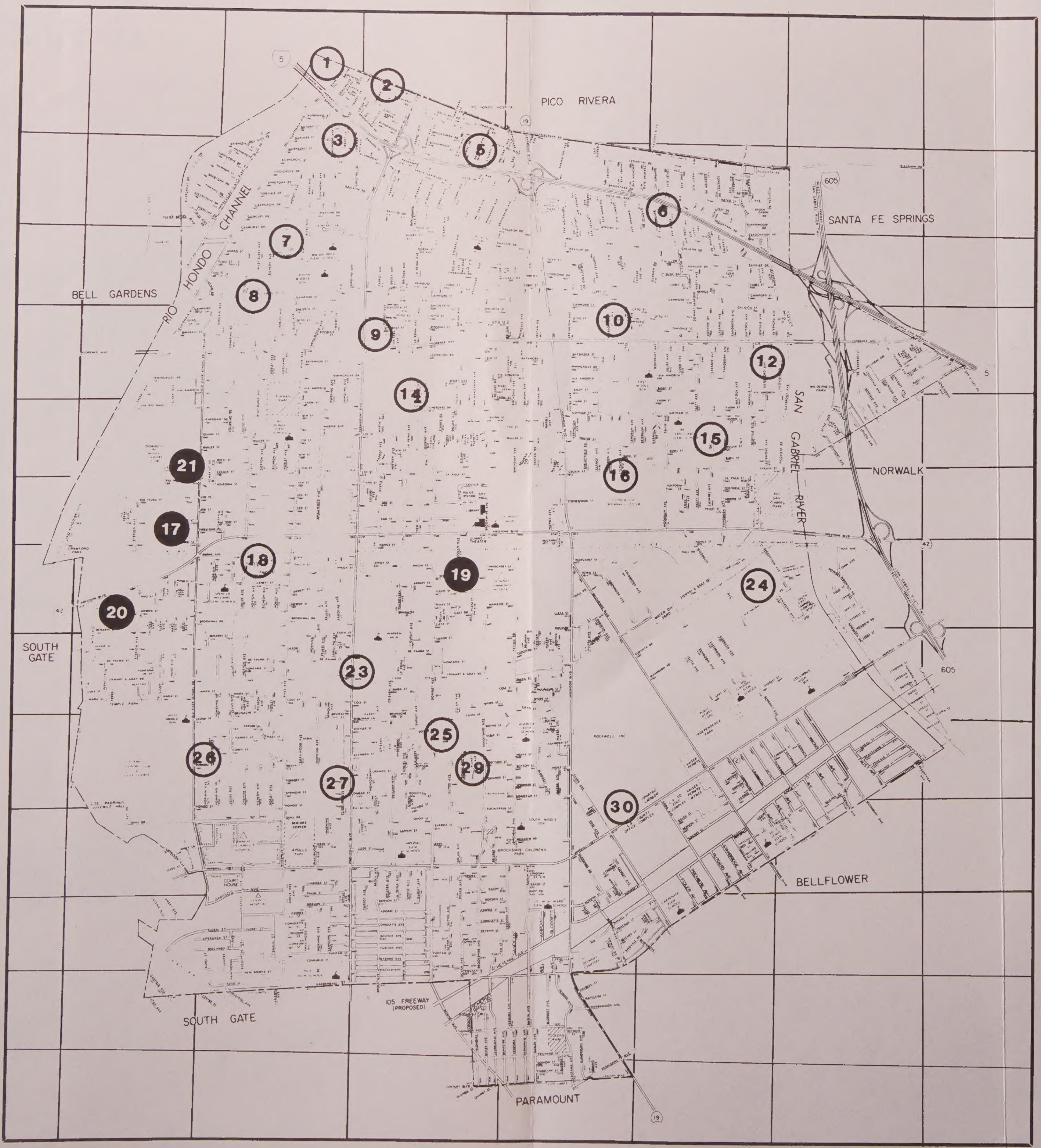
**DOWNEY GENERAL PLAN**

*Vision* 2010

## Legend

● CLEANED UP WELL SITE

○ WELL SITES



PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
605
19
42
1
2
3
5
6
7
8
9
10
12
14
15
16
17
18
19
20
21
23
24
25
26
27
29
30

SOURCE: City of Downey

# Well Sites

## Exhibit IV-3

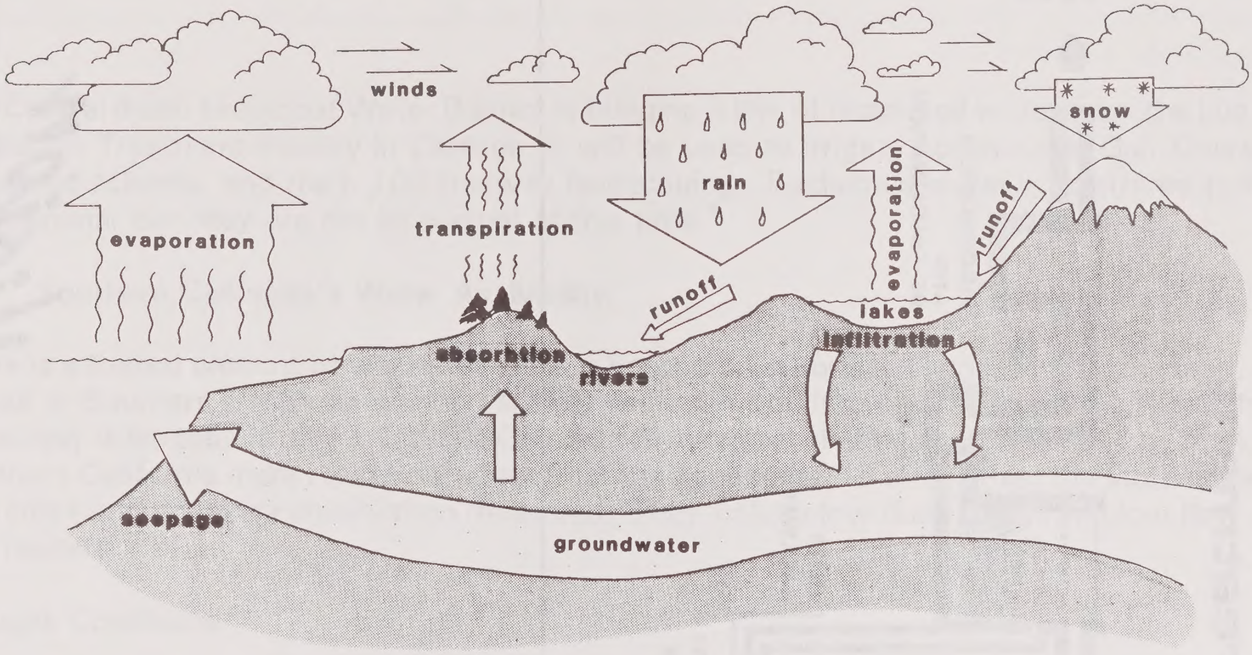
## Conservation Chapter

Not to scale.

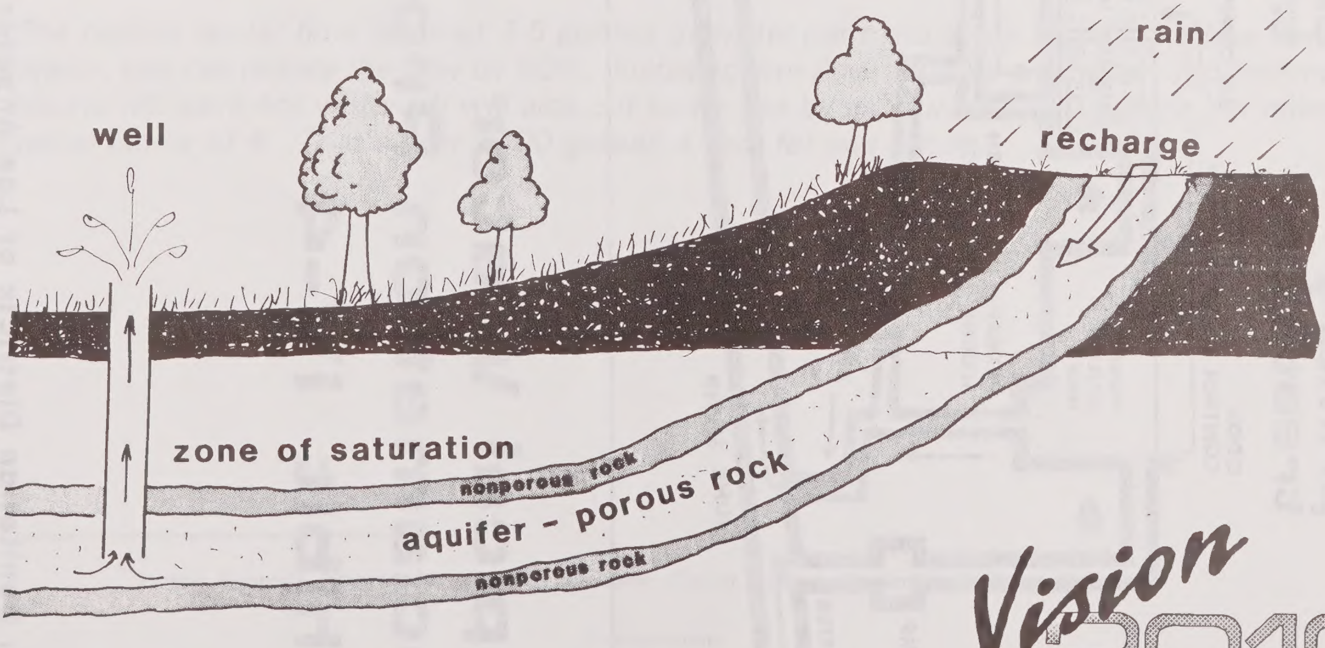
**DOWNEY GENERAL PLAN**

*Vision 2010*

# Hydrologic Cycle

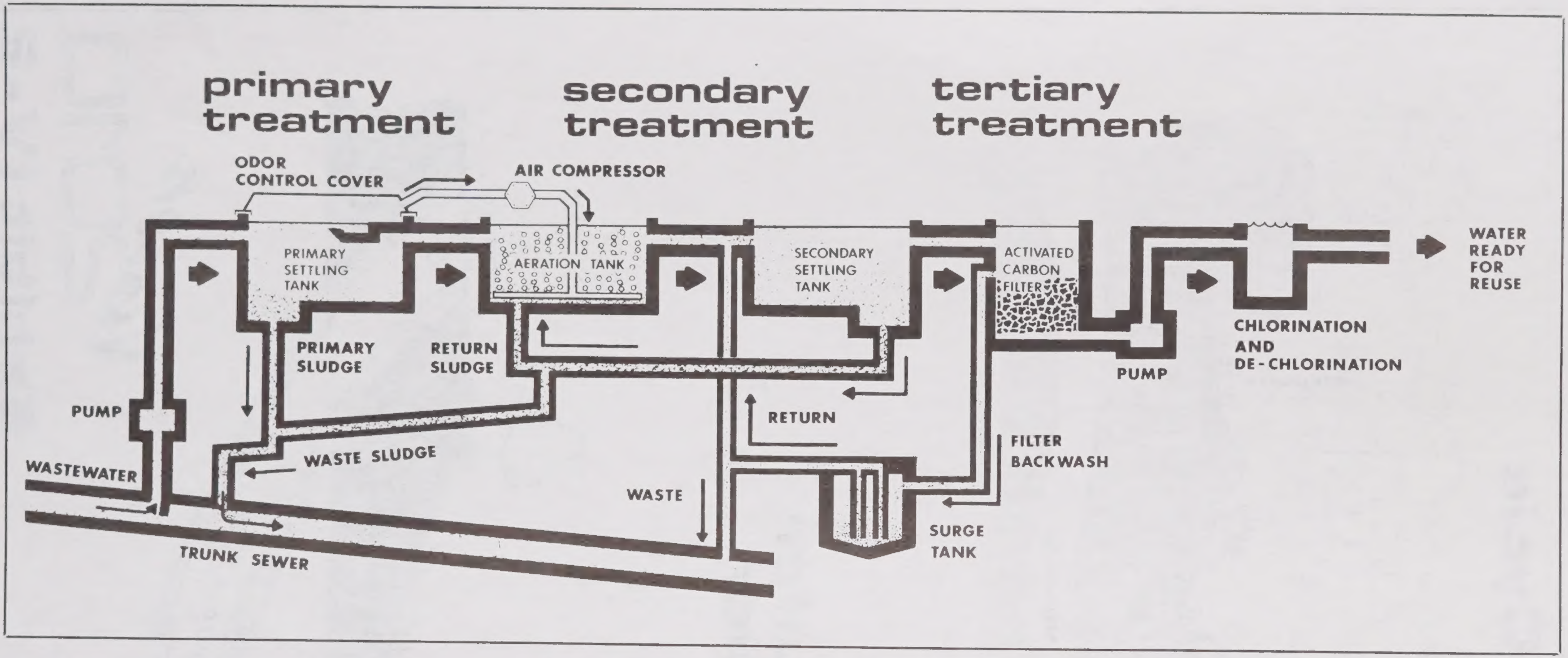

winds
evaporation
transpiration
rain
snow
evaporation
runoff
runoff
lakes
infiltration
absorbtion
rivers
seepage
groundwater

# Typical Aquifer Cross Section


rain
recharge
well
zone of saturation
nonporous rock
aquifer - porous rock
nonporous rock

Vision 2010

**Exhibit IV-2**


primary treatment
secondary treatment
tertiary treatment
ODOR CONTROL COVER
AIR COMPRESSOR
PRIMARY SETTLING TANK
AERATION TANK
SECONDARY SETTLING TANK
ACTIVATED CARBON FILTER
WATER READY FOR REUSE
PRIMARY SLUDGE
RETURN SLUDGE
CHLORINATION AND DE-CHLORINATION
PUMP
PUMP
RETURN
FILTER BACKWASH
WASTEWATER
WASTE SLUDGE
WASTE
SURGE TANK
TRUNK SEWER

# Typical Water Reclamation Process

## Exhibit IV-4

Source: Sanitation Districts of Los Angeles County

The Central Basin Municipal Water District is bringing a line of reclaimed water from the Los Coyotes Sanitation Treatment Facility in Cerritos. It will be used to irrigate Los Amigos Golf Course, some parks and schools, and the I- 105 freeway landscaping. Reclaimed water was offered to Rockwell International but they are not interested at this time.[5]

- **Southern California's Water Availability**

There is a limited amount of water available in Southern California. To meet water demand, Downey and all of Southern California are increasingly dependent on imported water. This is expensive and the supply is limited. In 1990, MWD's Colorado River water allotment was reduced by 55%, making Southern California more reliant on water from the aqueduct. To offset this, the state now requires that cities adopt water conservation measures. They include low flush toilets and low flow showers and faucets.

Drought Conditions

Drought is a recurring condition in Southern California. MWD, which obtains its water from the State Water Project and the Colorado River, projects that it will not be able to meet all water demands during drought conditions extending beyond one year. Downey's share of MWD water depends on the severity of the drought.

In previous drought conditions, specifically during 1978, the Water Division went on a voluntary program requesting their customers to cut back on their water usage by 10%. The net result was a 20% reduction in water consumption.

Based on national averages, residential water use consists of 68% indoor use and 32% outdoor use. Water conservation can be made a part of planning considerations, especially in landscape. Using drought tolerant plants could significantly reduce water usage for irrigation.

*"The normal faucet flow is about 3-5 gallons of water per minute. By attaching a low-flow faucet aerator, you can reduce the flow by 50%. Installing low-flow aerators on kitchen and bathroom sink faucets will save hot water. It will also cut water use by as much as 280 gallons per month for a typical family of 4. That's over 3300 gallons a year for one family.*

---

[5] Joseph Arranaga, Physical Services Superintendent, City of Downey, November, 1991.

## II. BIOLOGICAL RESOURCES

### Trees

There are significant mature trees, on both public and private land, throughout Downey that contribute to the quality of life in the city. Downey citizens have suggested certain mature and unusual trees as being significant (Appendix A). In addition, thirty-six trees on the Rancho Business Center site were found to be significant and they will be preserved or replaced with similar specimen trees. Four trees on the Rancho Business Center site must be preserved: a rare Bunya Bunya tree, a Mexican Apple Tree, Pink Cedar Cluster and a Moreton Bay Fig.

To be considered significant, trees are evaluated according to the following criteria:

- age;
- historical or cultural value;
- esthetic quality;
- native status;
- location;
- rarity;
- size including height, girth of tree trunk and spread of branches.

### Street Trees

The City needs a street tree program. The program would consist of a Master Street Plan by street and species and a maintenance schedule. The program would complement Keep Downey Beautiful's program. Keep Downey Beautiful (KDB), a volunteer group, together with the City, plants 50 to 60 street trees a year. KDB is funded by the City and private donations. The City will continue to support the group and participate in the tree planting. After they are planted, the City will maintain the trees.

*By consuming CO2, trees mitigate the "greenhouse effect." It's estimated that each mature tree consumes, on average, about 13 lbs. of CO2 per year. And urban trees consume it at a rate about 15 times that of rural trees.*

### Flora and Fauna

Much of Downey's original plant and animal life has been converted to urban landscape, restricting habitat to limited wildlife species. The existing flora and fauna in Downey is typical of that found in highly urbanized cities of the region. Urban open space such as parks and school grounds is largely composed of introduced trees and lawns.

Fauna commonly associated with an urban landscape includes rodents and avian species, such as house finches, Brewer's blackbirds, mockingbirds and hummingbirds.

### Ground Water Basin Spreading Ground

The Central Ground Water Basin maintains a spreading ground in the San Gabriel River Channel, next to Rio San Gabriel Park. At that point, the natural drainage channel does not have a concrete bottom because it is used as a settlement area. Water is "spread" to percolate into the aquifer and recharge the groundwater. As a result, there are plants and migratory birds in the channel. Since the water spreading is sporadic and controlled by man, this is not considered a natural habitat.

### Agriculture

Downey was once an agricultural community; however, the population and industrial growth after World War II forced out agricultural uses, replacing them with homes and businesses. The last areas used for agriculture are strawberry fields near the Santa Ana Freeway, and nursery easements in the Department of Water and Power and the Southern California Edison rights-of-way.

### Minerals/Soils

Downey does not contain significant mineral resources. However, the soils in the City, particularly those of the Chino and Hanford Association, constitute a resource for agricultural uses. They are loosely packed and rich with organic materials. Since the city is almost completely urbanized, and no significant agricultural uses exist in Downey, the soil resources are nearly unused except for large open space areas, such as the city parks, schools, golf courses and landscaping for residential, commercial and industrial uses.

## Topography

Downey encompasses approximately 12.78 square miles of relatively flat terrain. It contains gentle slopes averaging 0.25 percent. There are two major rivers on Downey's boundaries. The Rio Hondo River is located along the northwest boundary of the city, and the San Gabriel River borders the city on the east.

## Floods

Flooding and flood protection are discussed in the Safety Chapter of the plan.

## III. SOLID WASTE DISPOSAL

### Background

The average American throws away 3.5 pounds of trash per person per day. For a Downey family of four, this adds up to 5,110 pounds, or 2.6 tons, of garbage in a year. Nearly 80 percent of this trash goes into landfills. Solid waste disposal is increasingly important as landfills reach capacity and are located further from Downey. Recycling of solid waste will extend the life expectancy of landfills. The largest component of solid waste is household trash, 20% of which is "green waste" or material that could be composted. Construction, industrial and commercial waste occupy the rest of the landfill.

- **Recycling**

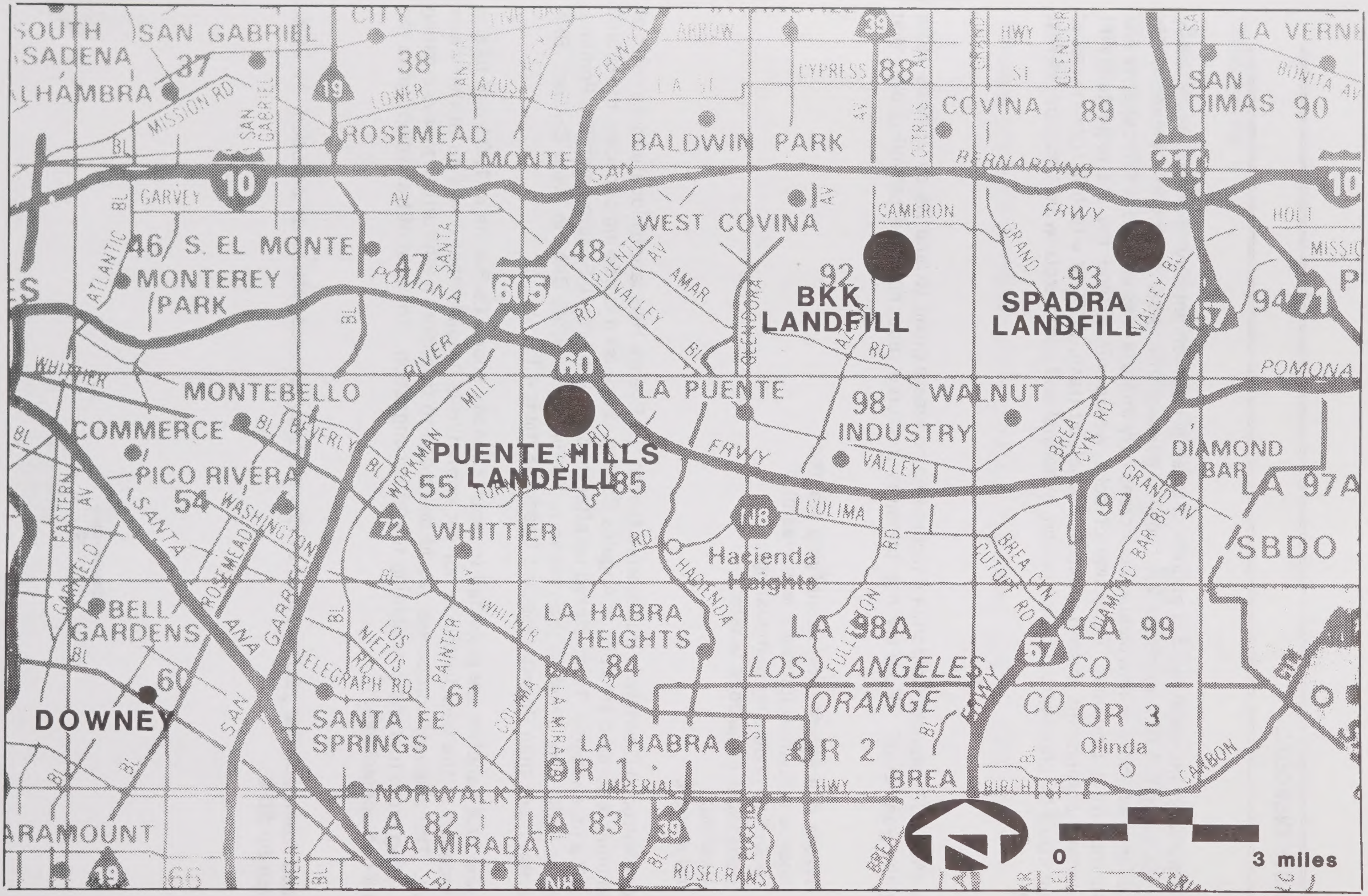
Assembly Bill (AB) 939 requires California cities to reduce waste going to landfills by 25% by 1995 and 50% by the year 2000. Downey has prepared a source reduction and recycling plan that includes:

- waste characterization (identifying waste);
- source reduction (produce less waste);
- recycling (including composting);
- household hazardous waste;
- funding;
- education.

Solid waste generated in Downey is transported first to the Puente Hills landfill,located just north of Whittier in the unincorporated area of Los Angeles County. Because it is nearing capacity, the landfill closes at 11:00 a.m. each day. Trash picked up after that is taken first to Spadra Landfill in Pomona. Spadra closes at 3:00 p.m. Trash is then taken to the private landfill, BKK, in West Covina. BKK charges $8 a ton more than Puente Hills and Spadra (Exhibit 4.5).

Puente Hills and BKK Landfills are projected to reach capacity soon; La Puente in 1991 and BKK in 1995. The location of the new landfill is not yet known; it is possible that it will be further away from Downey. The disposal companies would be forced to transport trash further away, creating air pollution, using more fuel and contributing to traffic congestion. The cost of trash disposal to the consumer will rise accordingly.

*Glass produced from recycled glass instead of raw material reduces related air pollution by 20%, water pollution by 50%.*


BKK LANDFILL
SPADRA LANDFILL
PUENTE HILLS LANDFILL
SOUTH PASADENA
SAN GABRIEL
ALHAMBRA
ROSEMEAD
EL MONTE
BALDWIN PARK
COVINA
SAN DIMAS
LA VERNE
WEST COVINA
S. EL MONTE
MONTEREY PARK
MONTEBELLO
LA PUENTE
WALNUT
INDUSTRY
COMMERCE
PICO RIVERA
DIAMOND BAR
WHITTIER
Hacienda Heights
BELL GARDENS
LA HABRA HEIGHTS
DOWNEY
SANTA FE SPRINGS
LA HABRA
BREA
Olinda
NORWALK
LA MIRADA
PARAMOUNT
LOS ANGELES CO
ORANGE CO
0
3 miles

## Solid Waste Landfill Sites

## Exhibit IV-5

Vision 2010

Downey encourages citizens to recycle. The city, together with Keep Downey Beautiful, sponsors "Waste In Place", a recycling education program in the elementary schools. In 1990 over 11,500 school children were reached by the program. The program will soon include junior high and high school science classes.

Since 1976 the city has sponsored DART, Downey At-Home Recycling Team, a voluntary recycling program for single family residences. Following is a chart showing solid waste collected through DART for the past five years.

WASTE COLLECTED BY DART (in tons)

| | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|
| Newspaper | 529.7 | 613.3 | 825.0 | 1257.1 | 1576.9 |
| Aluminum | 14.3 | 6.3 | 7.1 | 6.6 | 12.1 |
| Glass | 173.6 | 162.7 | 150.5 | 177.5 | 329.7 |
| Tin | -0- | -0- | -0- | 15.1* | 30.8 |
| PET Plastic | -0- | -0- | 0.9** | 11.5 | 16.9*** |
| TOTAL TONNAGES | 717.6 | 782.3 | 983.5 | 1467.9 | 1966.4 |

* March through December
** June through December
*** PET & HDPE Plastic

Tonnage of recyclables collected is approximately 3 to 5% of Downey's solid waste mass. To achieve the state requirement, Downey must require recycling for all residences, including multi-family, and all businesses in the city. Downey will also expand recycled materials to include those required by the State. The City will set up public information programs to educate the public about State requirements and how citizens will be affected.

Adequate on-site storage areas for recyclable materials should be required for new developments. This is to encourage recycling and is consistent with policies and programs in the Land Use Chapter development standards.

*In 1988 alone, aluminum can recycling saved more than 11 billion kilowatt hours of electricity, enough to supply the residential needs of New York City for six months.*[6]

a:conserv.gp

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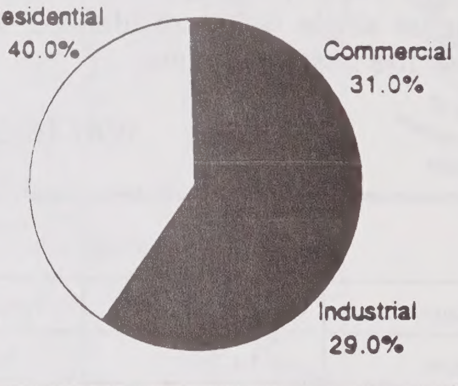
[6] Conservation quotes in this chapter are from "50 Simple Things You Can Do To Save The Earth", The Earth Works Group, Earthworks Press, Berkeley, California, 1989.

# Solid Waste Generation Analysis
# City of Downey

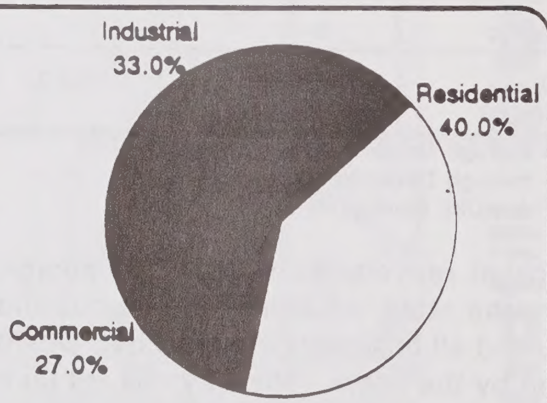
## Solid Waste Generation (tons/year)

| | |
|---|---|
| Residential | 47,655 |
| Commercial | 37,296 |
| Industrial | 34,530 |
| Total | 119,481 |



## Solid Waste Disposal (tons/year)

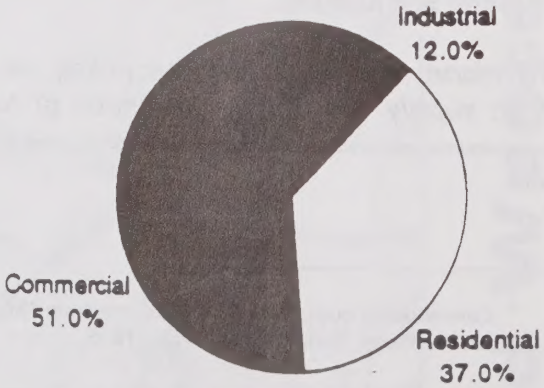
| | |
|---|---|
| Residential | 40,196 |
| Commercial | 27,207 |
| Industrial | 32,186 |
| Total | 99,589 |



## Solid Waste Diversion (tons/year)

Current diversion rate = 16.6%

| | |
|---|---|
| Residential | 7,459 |
| Commercial | 10,089 |
| Industrial | 2,344 |
| Total | 19,892 |

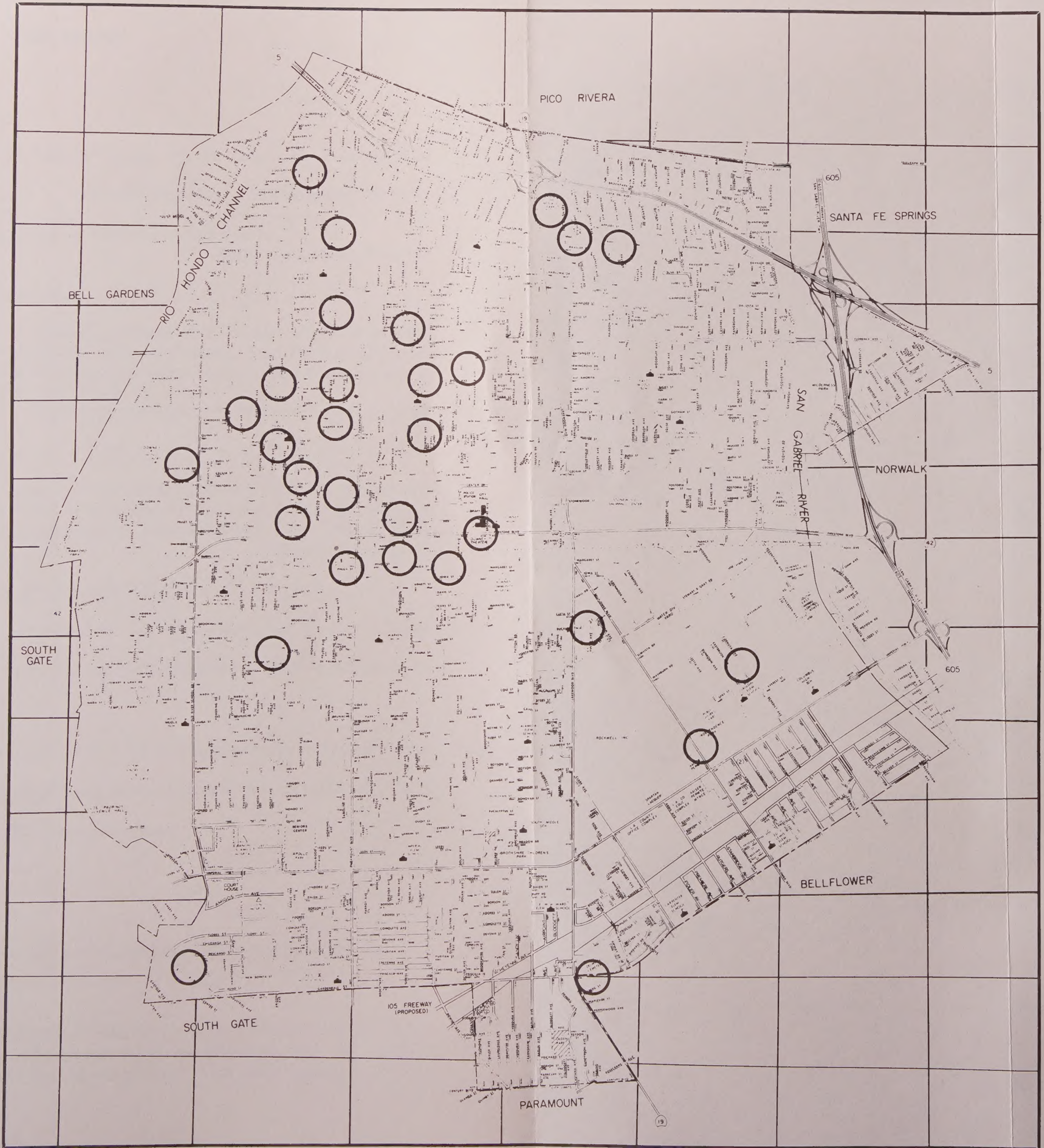


# Appendix A

# Significant Trees in Downey

## Legend

○ SIGNIFICANT TREE(S)



PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
105 FREEWAY (PROPOSED)
PARAMOUNT
605
5
42
19

SOURCE: City of Downey

# Significant Trees

## Exhibit IVA-1

## Conservation Chapter

Not to scale.

**DOWNEY GENERAL PLAN**

Vision 2010

# TREE SURVEY

## PALMS

### Tweedy Lane, from Florence to Gallatin

> "Planted and watered by Maude Tweedy Copass and her father, Mr. Tweedy more than 90 years ago."
>
> --Mrs. Arlyss Kelley, 9206 Gaymont, Downey

> "They are a unique landmark and can be seen from blocks away."
>
> --Betty Livingstone, Downey

### Downey Avenue, 5th Street north to Florence

> "...were planted either in 1914 or 1915 by my father (S.H. Wilson) who was then the road foreman. They were alternated with magnolias planted from Third and Downey to Easy Street (Florence), then to Tweedy Lane, down Foster Bridge Road (Suva)...to the Red car tracks (now Garfield in Bell Gardens)."
>
> --Marian Wilson Jones, 8036 Third Street, Downey

### Rives Avenue, north of Firestone

> "...used to be posted as Burke Lane. Frank Burke planted them. (1910?) He went up to the Hall of Records and on the way back stopped at Germains and bought 5 lbs. of palm seed. He planted them along his irrigation ditch and thinned them out evenly as he gave them away."
>
> --Marian Wilson Jones

### Dolan Street, west side, between Firestone and SPRR tracks

> "They have always been there, as far back as I can remember, when the Myers Family lived there and we lived next door."
>
> --Virginia Darby Warren, Downey native aged about 80

### Others

Two on south side of Lexington, east of Downey Avenue, probably marked entrance to former Willeford estate, 1919.

Several on east side of Lakewood Boulevard, north of Stewart & Gray Road, landmarks for years.

Several very old palms at Downey District Cemetery.

## MAGNOLIAS

### Tweedy Lane, from Florence to Gallatin

Were alternated with palms, said to be planted by S.H. Wilson about 1914-15.

### Nance and la Reina, SPRR right-of-way

This magnolia is all that remains of the trees which once surrounded the Downey Depot. There had been a palm tree shaded walkway which ran diagonally from the corner of Downey Avenue and Firestone Boulevard (turn of the century). Last palms disappeared in the late 1970s.

11745 Rives Avenue

Private property? Said to be over 100 years old in 1954 by L.A. County parks department.

## CAMPHORS

### 4th Place, between Rives and Paramount (7810 and 7921)

"A huge specimen of this type at 7810 4th Place, the sidewalk has been re-routed to accommodate it." --John Vincent, 10710 Wiley-Burke

"This is a beautiful tree and over 100 years old." (7810 4th Place) --Darlene Ingwersen, 7626 Fostoria

### Rancho Los Amigos Medical Center

Documented in EIR and Specific Plan

### Downey Cemetery, Lakewood and Gardendale

"Line both sides of entry road east from Lakewood Boulevard." --Joyce Lawrence

## SYCAMORES

### Muller Street, west of Rives Avenue

"It is very large and has an 'interesting' shape. It looks old." --Gloria Heer, 10257 Rives Avenue

Arrington, north of Gallatin - mature street trees

Irwingrove, at Morning

"Spectacular 3 to 4 story sycamore, they pay a cherry-picker pruner, really cherish the tree (Barth family, owners). --Lyn Fisher, 10226 Hopeland

## GINGKO

### Downey City Library

"Nominated for size and beauty." --Clara H. Miller

### Irwingrove Drive, between Rives and Wiley-Burke

"Planted 36 years ago, tall and stately." --Laura Hadley

Furman Park - 30 trees (Donated by D.A.R.) --Clara H. Miller

OTHERS

**OAK** - Corner of Rives and 4th Place (private property) - "Planted by Frank Burke from an acorn he picked up in Central California on a hunting trip with Gene Biscailuz."
--Marian Wilson Jones

**CEDAR** - 9220 Gallatin, probably marked entrance to property of pioneer William Sex (Sax).

**WALNUTS & ORANGES** - 7th Street, between Smallwood and Rives, remnants from Rives family orchards?

**EUCALYPTUS** - Huge tree at entrance to Independence Park on Bellflower Boulevard. (Also macadamia nut trees here). Also at Rio Hondo Country Club, corner parking lot at Country Club Drive.

**JACARANDAS** - Fifth Street from Paramount to Smallwood

**LIQUIDAMBER** - (or sycamore?) - Wiley-Burke from Florence north to Suva, and from Florence south to Quinn --Lyn Fisher

**AURUCARIA ("Monkey Puzzle")** - Paramount Boulevard just south of SPRR tracks, west side, in a parking lot which was paved around it.

**PINES** - Coolgrove street trees, between Tweedy and Guatemala.

**UNKNOWN** - yellow flowering trees, east side of La Reina & Firestone. Parkway trees, Eastbrook Avenue, Washburn to Gauldin School.

"Large trees almost cover entire street in summer and fall, creating a tunnel effect on the street."
--David Gafin, 12236 Eastbrook Avenue

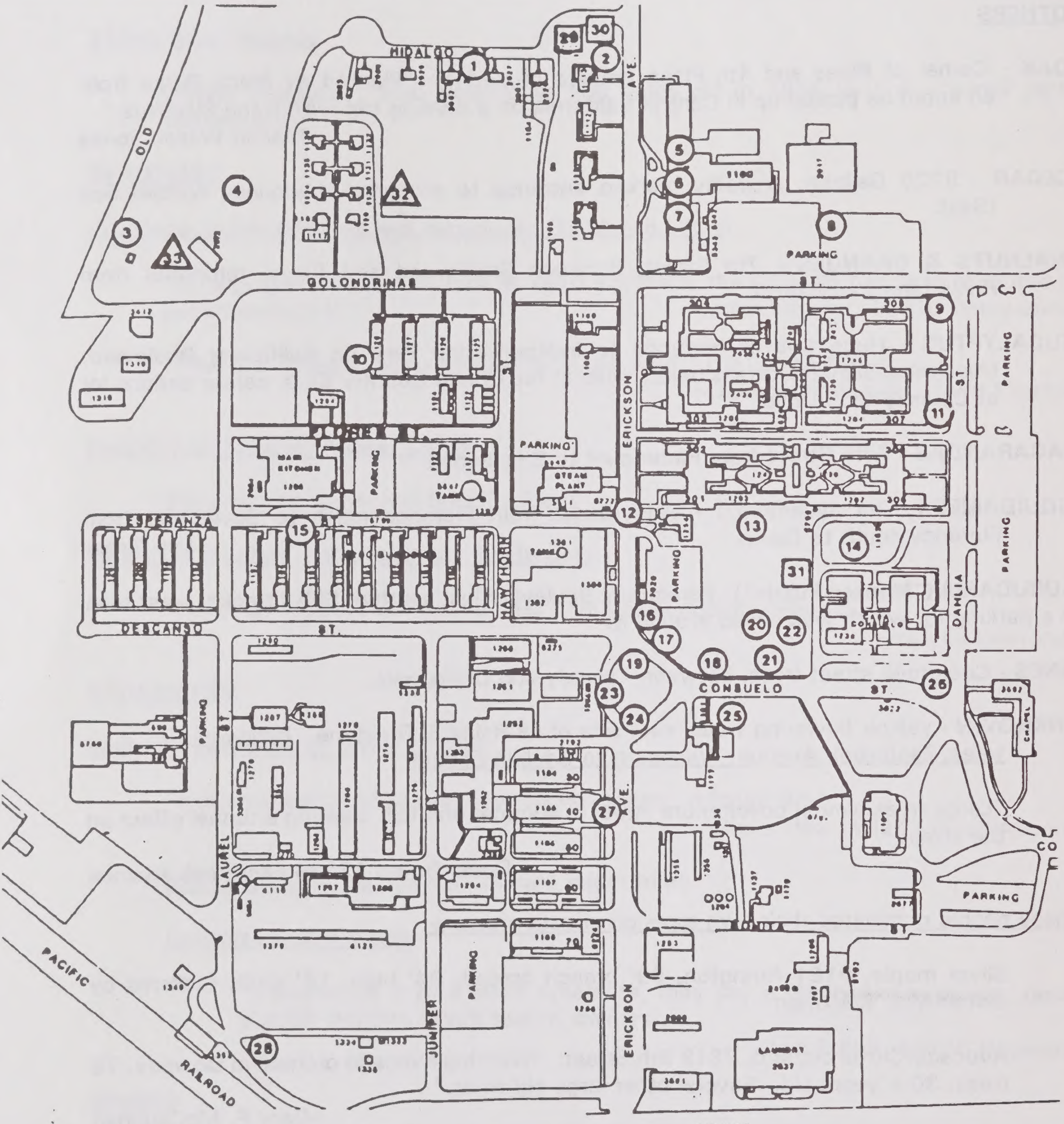
These people nominated their own trees on private property:

Silver maple, 9161 Arrington, 99' branch spread, 94' high, 16' girth, reported by owner Mrs. Brinkman

Avocado/Citrus orchard, 7819 8th Street: "Working avocado orchard in Downey, 75 trees, 30+ years old. Several other large old trees."
--Gary P. McCaughan

English walnut, between 75-80 years old (62 ft. n/s, 54 ft. e/w, 60" circumference) and Persimmon trees planted in 1921 by his father, Fred Reinke, 8111 Florence.
--Edward Reinke, dec.

* Source: Joyce Lawrence, Downey Historical Society


HIDALGO
OLD
GOLONDRINAS
ST.
ERICKSON
AVE.
PARKING
MAIN KITCHEN
STEAM PLANT
ESPERANZA
ST.
DESCANSO
ST.
HAWTHORN
DAHLIA
CONSUELO
ST.
CHAPEL
LAUREL
JUNIPER
ERICKSON
AVE.
LAUNDRY
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33

Based on Rancho Los Amigos Hospital Tree Survey, June 1986
Befu Donan Associates, Landscape Architects and Site Planners

Note: Trees of a combined rating of less than 13 (indicating trees of average value and condition have not been included in this exhibit.

○ Outstanding specimens; superb condition and size. Trees recommended to be saved by designing around.

□ Excellent or unusual examples because of size, recommended to be saved by designing around.

△ Very good or rare; (transplant if cost and survival probability justifies)

0 300'

## Tree Survey

## TREE SURVEY-RANCHO BUSINESS PARK

# DOWNEY GENERAL PLAN

## CONSERVATION CHAPTER

Vision 2010

SOURCE: CITY OF DOWNEY

# DOWNEY
# GENERAL PLAN

# SAFETY
# CHAPTER

## SAFETY CHAPTER

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# SAFETY

## Introduction

The Safety Chapter, which is authorized by Section 65302(i) of the Government Code, was first required partly in reaction to devastating wildland fires in September and October, 1970. In 1971, the San Fernando earthquake prompted the legislature to include seismic safety in the chapter. The intent is to reduce loss of life, injuries, and damage to property resulting from natural and man-induced hazards. The hazards discussed in this chapter include seismic, flooding, fire, crime, an abandoned landfill, air and train traffic, street lights and sidewalks, and topography. The chapter also discusses Downey's emergency plan in the event of a disaster.

## SAFETY ISSUES

### SEISMIC SAFETY

**Issue One**

A major earthquake is expected to hit Southern California in the next 30 years.

### FLOODS

**Issue Two**

Many areas in Downey have been identified as being in the 100-year flood plain and Downey is not part of the Federal Emergency Management Agency.

### FIRE PROTECTION

**Issue Three**

Water delivery and availability for fighting fires needs to be upgraded in several areas of Downey.

### POLICE PROTECTION

**Issue Four**

Crimes listed in the federal index increased in Downey.

### LANDFILL SITE

**Issue Five**

An abandoned landfill site has been identified in Downey.

### AIR TRAFFIC

**Issue Six**

Airplane traffic over Downey is significant. There are 75+ flights an hour to LAX, and Rockwell has a helicopter that regularly flies in and out of the city.

## STREET LIGHTS AND SIDEWALKS

### Issue Seven

Many areas of Downey do not have street lights or sidewalks.

## TRAIN TRACKS

### Issue Eight

The train tracks paralleling Firestone Boulevard divide the city in half. In an emergency they could prevent emergency equipment from reaching the hospital quickly.

## GOAL, ISSUES, POLICIES AND PROGRAMS

The following goal, policies and programs have been developed to address safety issues in the City of Downey.

### Goal

Protect life and property from natural disasters, crime and fire.

- **Issue One**

A major earthquake is expected to hit Southern California in the next 30 years.

### Policies

5. 1.1 The City shall prepare for the catastrophe that will result from a major quake.

### Programs

The City shall:

5.1.1.1 Monitor the fuel pipelines that could rupture and cause fires in a major earthquake;

5.1.1.2 Promote public education about earthquake safety;

5.1.1.3 Require all new developments to underground utility lines;

5.1.1.4 Develop a Master Plan for undergrounding existing lines and prioritize them;

5.1.1.5 Maintain the current multi-hazard function emergency preparedness plan that includes the threat of major earthquakes;

5.1.1.6 Maintain the City's Emergency Center.

- **Issue Two**

Many areas in Downey have been identified as being in the 100-year flood plain and Downey is not part of the Federal Emergency Management Agency.

**Policies**

5.2.1 The City shall participate in the FEMA program.

5.2.2 The City shall support the Army Corps of Engineers projects.

5.2.3 The City shall evaluate and establish a program regarding drainage systems as they pertain to future growth.

**Programs**

The City shall:

5.2.1.1 Enforce City ordinances that comply with FEMA requirements and join the insurance program at "C" rates;

5.2.2.1 The City shall support the Army Corps of Engineers' project, including raising of bridges and levees for river beds (Rio Hondo);

5.2.3.1 Take measures for new construction to assure adequate protection and drainage from heavy rains or flooding.

- **Issue Three**

Water delivery and availability for fighting fires needs to be upgraded in several areas of Downey.

**Policies**

5.3.1 The City shall maintain the priority program established in the 1988 Montgomery Water Study Update for upgrading the water system.

5.3.2 The City shall develop programs to protect life and property from fire.

**Programs**

The City shall:

5.3.1.1 Upgrade the fire flow system;

5.3.2.1 Require fire sprinklers in new residential structures of three units or more and in new commercial and industrial structures; however it is highly desireable to have fire sprinklers installed in single family dwellings.

5.3.2.2 Require fire sprinklers in all major rehabilitations of residential structures of three units or more and all major rehabilitations of commercial and industrial structures (more than 50% replacement cost); however it is highly desireable to have fire sprinklers installed in single family dwellings.

5.3.2.3 Promote the use of Class B or better roofs, on new construction, major remodels and major reroofs; wood roofs shall be discouraged.

- **Issue Four**

Crimes listed in the federal index increased in Downey.

**Policy**

5.4.1 The City shall reduce crime in Downey.

**Programs**

The City shall:

5.4.1.1 Maintain the service level of the police department and adjust the staff as needed;

5.4.1.2 Promote more Neighborhood Watch programs;

5.4.1.3 Educate the public about crime prevention programs such as DARE (Drug Awareness Resistance Education), GOOD (Gangs Out Of Downey), Business Watch and CAD (Computer Aided Dispatch);

5.4.1.4 Improve the visibility of police in neighborhoods;

5.4.1.5 Maintain the staff level of the gang detail and increase as necessary.

- **Issue Five**

An abandoned landfill site has been identified in Downey.

**Policy**

5.5.1 The City shall monitor the existing landfill and implement appropriate safety measures.

**Programs**

The City shall:

5.5.1.1 Monitor, on a regular basis, the landfill for subsidence, odor and toxic gases;

5.5.1.2 Implement safety measures as required.

- **Issue Six**

Airplane traffic over Downey is significant. There are 75+ flights an hour to LAX, and Rockwell has a helicopter that regularly flies in and out of the City.

**Policy**

5.6.1 The City shall maintain the current multi-hazard function emergency preparedness plan to include the following threats:
1) major earthquakes 2) hazardous materials incidents 3) eminent or actual flooding 4) eminent or actual dam failure 5) aircraft accident and 6) war.

**Programs**

The City shall:

5.6.1.1 Contact the FAA requesting that the FAA consider altering the flight path to LAX;

5.6.1.2 Locate future helipads away from residential areas.

- **Issue Seven**

Many areas of Downey do not have street lights or sidewalks.

**Policies**

5.7.1 The City shall adopt a Master Plan for installation of street lights and sidewalks throughout the City.

**Programs**

The City shall:

5.7.1.1 Adopt a Master Plan for installation of street lights;

5.7.1.2 Require street lights for new developments consistent with the street light Master Plan;

5.7.1.3 Adopt a Master Plan for installation of sidewalks for major arterials, collector streets and school routes;

5.7.1.4 Require sidewalks in new developments and major remodeling consistent with the sidewalk Master Plan.

- **Issue Eight**

The train tracks paralleling Firestone Boulevard divide the city in half. In an emergency they could prevent emergency equipment from reaching the hospital quickly.

**Policy**

5.8.1 The City shall request Southern Pacific Railroad cooperation in facilitating access to Downey Community Hospital.

**Programs**

The City shall:

5.8.1.1 Request that Southern Pacific Railroad construct grade separations at these crossings; Lakewood Boulevard, Brookshire Avenue and Woodruff Avenue.

## I. SEISMIC SAFETY

There is a 50% probability that a major earthquake will occur within the next 20 or 30 years on or near the San Andreas Fault, 40 miles northeast of Downey. Downey is located in a seismically active area and is close to several active and potentially active faults (Exhibit 5.1). Faults closest to Downey are the Norwalk Fault, the Whittier-Elsinore Fault and the Newport-Inglewood Fault. If an 8.0 earthquake occurred on one of those faults, it has been estimated that the effect on Downey could be very serious.

### • Seismic Characteristics

Historically, most major injuries or fatalities related to earthquakes are due to structural failure resulting from groundshaking. The main variables that determine the extent of damage caused by groundshaking vibrations are:

- Type of soil;
- Intensity and duration of groundshaking.
- Design of structure;
- Quality of materials and construction.

There is evidence to indicate that, depending on the magnitude of the earthquake, the soil beneath a site influences the earthquake groundshaking characteristics at the site. In addition, damage to any structure depends on site-specific characteristics of the structure (unreinforced masonry for example).

Type of Soil

The three soil types in Downey are Hanford Sands, Tujunga Sands and Chino Silt Loam (Exhibit 5.2). For the most part, soils within Downey are composed of Hanford Soils found on alluvial fans and classified as silts and sands. In Downey groundshaking could be the most significant threat to life and property, particularly if there is a major quake on the Norwalk fault.

Intensity and Duration of Groundshaking

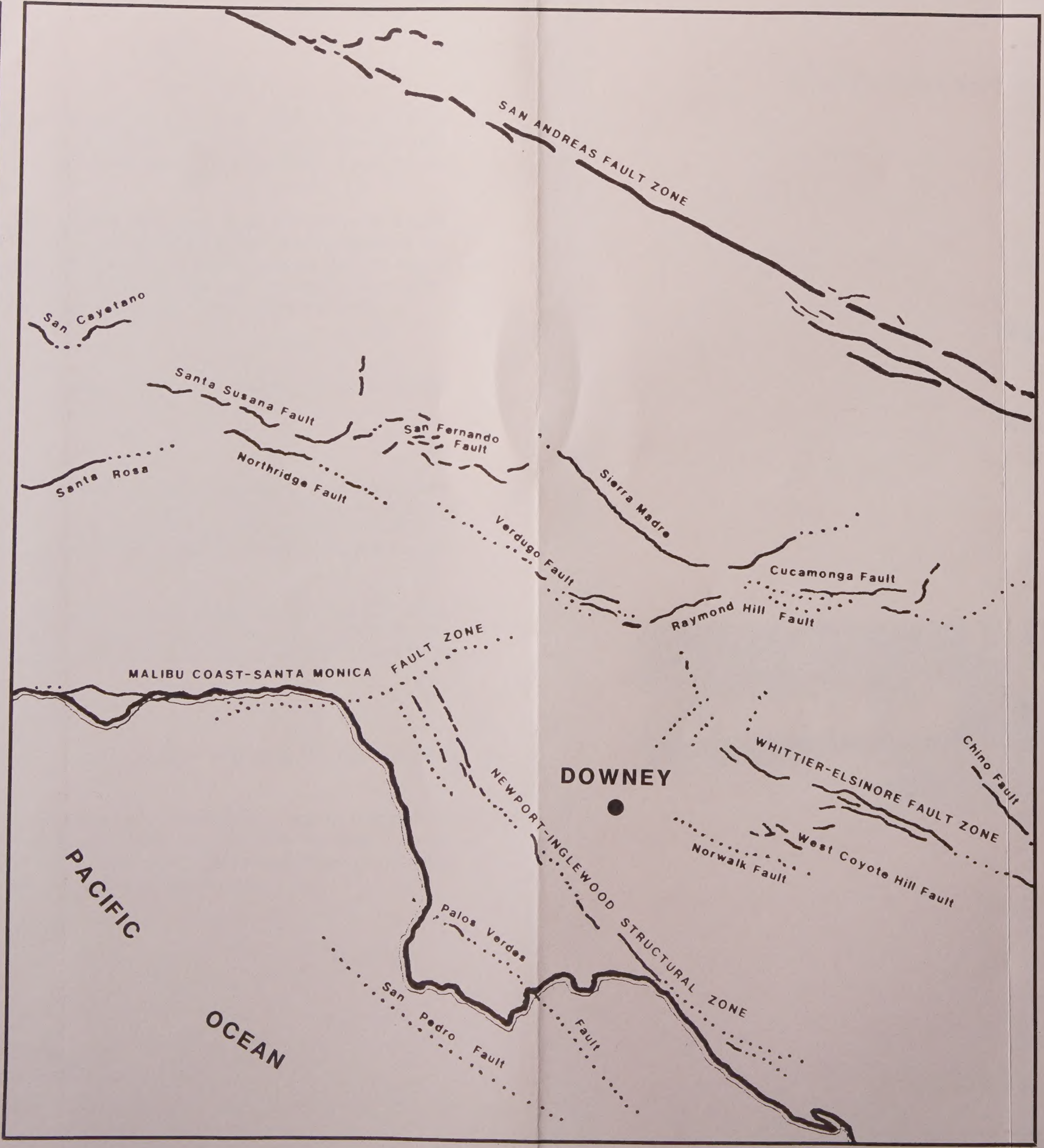
Groundshaking is ground surface vibrations during an earthquake and is most severe near the eipcenter, becoming weaker further out. In an earthquake of significant magnitude, groundshaking can affect very large areas (up to 50,000 square miles or more). Groundshaking is usually the greatest cause of damage, especially in urban areas.

## Legend

——···· Fault known to disturb Quaternary or Holocene materials, dotted where inferred or concealed

—— Fault segment with historic ground rupture or aseismic creep

SOURCE: City of Downey


SAN ANDREAS FAULT ZONE
San Cayetano
Santa Susana Fault
San Fernando Fault
Santa Rosa
Northridge Fault
Sierra Madre
Verdugo Fault
Cucamonga Fault
Raymond Hill Fault
MALIBU COAST-SANTA MONICA FAULT ZONE
DOWNEY
WHITTIER-ELSINORE FAULT ZONE
Chino Fault
West Coyote Hill Fault
Norwalk Fault
NEWPORT-INGLEWOOD STRUCTURAL ZONE
Palos Verdes Fault
San Pedro Fault
PACIFIC OCEAN

# Major Regional Fault Zones

## Exhibit V-1

## Safety Chapter

0 15 30
Scale in Miles

## DOWNEY GENERAL PLAN

Vision 2010

### Structures

Because of their importance, life-essential services, such as public utilities, water storage facilities, medical care and law enforcement must be located in structures that are earthquake resistant. Moreover, continual inspection and maintenance must be a part of any seismic safety and disaster planning program.

Downey enforces the Uniform Building Code (UBC). The purpose of the UBC is to provide minimum standards to safeguard life, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy. Seismic design requirements are found in Section 2312 of the UBC and include such limitations as setbacks, building separation, structural systems, design requirements and exterior elements.

### Quality of Materials and Construction

The state has adopted the UBC seismic design requirements. Quality of materials and construction related to seismic safety are regulated.

### Unreinforced Masonry Buildings

Unreinforced masonry buildings are an earthquake safety hazard. Typically, the buildings were constructed prior to earthquake safety codes that required steel reinforcing in masonry buildings. Collapsing unreinforced masonry buildings continue to be a problem in California earthquakes. In the 1989 Loma Prieta quake, one death in the City of Santa Cruz was caused by a collapsed unreinforced masonry building.

SB 547 requires cities to inventory certain unreinforced buildings; Downey has 13. Three structures were reinforced after the 1987 Whittier earthquake: Downey Avenue Theatre (11022 Downey Avenue), Paramount Chevrolet (11212 Paramount) and an office at 11212 Paramount Boulevard.

Owners of unreinforced buildings have three choices:

- The owner can prove that the building has been reinforced. This must be done by a structural engineer.
- The building can be made earthquake safe. This involves a structural engineer's analysis of the building. The engineer's report specifies work necessary to make the building safe in the event of an earthquake. This usually involves tying the roof to the walls and reinforcing walls and foundations.
- The building can be demolished.

State law gives building owners one year to comply, by either completing the structural work or completing the demolition. Soon, there will be no unreinforced masonry buildings covered by SB547 in Downey.

## Liquefaction

Liquefaction causes ground subsidence. It is the process by which soils become fluid and lose all shear strength during an earthquake, and is not expected to occur in Downey. Three simultaneous conditions are necessary for liquefaction. They are: 1) generally cohesionless soils, predominately sand); 2) high ground water; and 3) groundshaking. If the liquefying layer is near the surface, the effects are much like that of quicksand on any structure located on it. If the layer is in the subsurface, it may provide a slide surface for the material above.

Liquifaction typically occurs in areas where the groundwater is less than 30 feet from the surface, and where the soils are composed of poorly consolidated fine sand. Downey's groundwater table is 40' below the surface; therefore, the potential for liquification is slight.

# Soil Types and Topography

# Exhibit V-2

# Safety Chapter

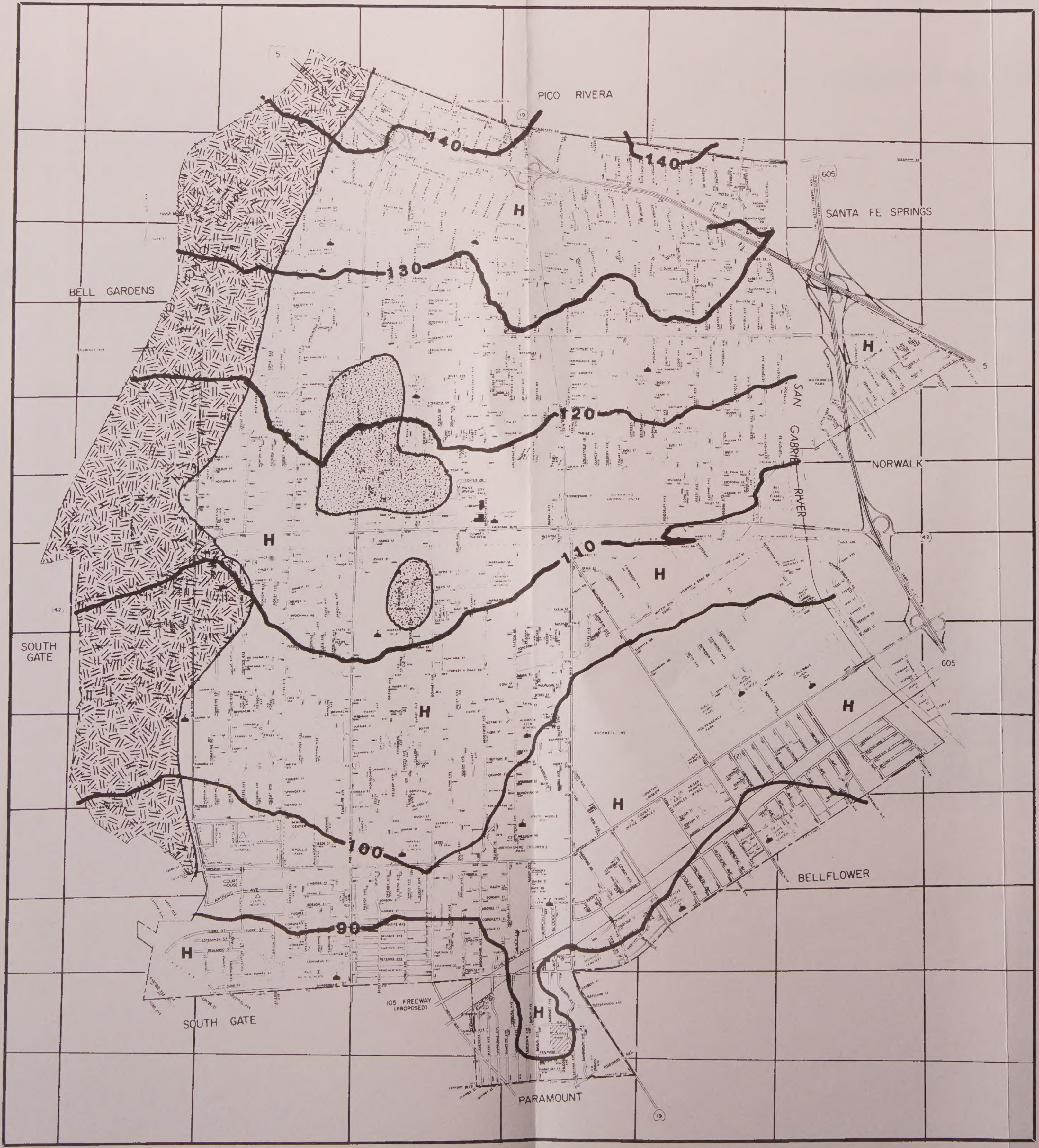
## Legend

▨ TUJUNGA SANDS

▒ CHINO SILT LOAM

H HANFORD SANDS

90 CONTOURS


PICO RIVERA
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BELL GARDENS
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Not to scale.

SOURCE: City of Downey

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Vision 2010

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Liquifaction typically occurs in areas where the groundwater is less than 30 feet from the surface, and where the soils are composed of poorly consolidated fine sand. Downey's groundwater table is 40' below the surface; therefore, the potential for liquification is slight.

- **Seismic Hazards**

Roadways

After an earthquake, roadways could become a safety hazard to Downey residents. Evacuation or post-disaster emergency vehicle access could be impeded if surface streets are disrupted from surface rupture or clogged with fallen debris. Freeway overpasses on the Santa Ana, San Gabriel River and Long Beach Freeways, could collapse and block access into and out of the city. A major quake could dislodge portions of the overpasses, blocking traffic flow and injuring motorists, as happened in the collapse of the I-210 and I-5 freeways in the 1971 San Fernando earthquake and the Nimitz Freeway collapse in the 1989 Loma Prieta quake. In the event of roadway collapse, the City has adopted an emergency preparedness plan specifying how the city will respond.

Electrical Utility Lines

The City of Downey is currently undergrounding electrical utility lines, based on a priority program. Major street arteries are the highest priority for undergrounding. Until the undergrounding is completed, the existing overhead wires could create a safety hazard during an earthquake if they fall across streets and block the passage of emergency vehicles or evacuating citizens. The broken lines could also ignite fires or explosions through sparking, as well as limit power to emergency facilities.

Underground Pipelines

There are 4 active underground liquid fuel lines under Downey which are also subject to fire and explosion hazards if the lines are ruptured in an earthquake (Exhibit 5.3). Although underground pipelines are the safest way to transport petroleum products, since trucks are the alternative, they create potential hazards. Even without fire or explosion, major leakage from them could cause considerable damage and require extensive and expensive cleanup.

The pipelines under Downey are owned by Atlantic Richfield, Gulf and Mobil Oil Companies. Mobil Oil states that there is gasoline at 650 pounds per square inch in their pipeline. The oil companies will submit their emergency operating plans to the City.

As of January, 1991, all lines will have cathotic protection, which is protection from corrosion due to electrical activity. The pipelines are also equipped with automatic shut-off valves, that will close the system down when the line breaks. Periodically, hydrostatic testing, high pressure water put through the line, is done to test for leaks. When the pipelines are abandoned, the City will require that sand/slurry be put into the lines, to prevent their being used again. Hazards presented by gas and fuel pipelines within the city require consideration in all disaster and emergency planning.

## II. FLOODS

### Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) conducted a flood study of the Los Angeles River and released maps showing Downey might be inundated by flood waters in a 100 year flood (a 100 year flood is one of such intensity that it has a 1% chance of occuring in any given year). Until the Army Corps of Engineers raises the levees on the river channels, by the year 2000, Downey must take measures to prevent flood damage. Downey will comply with FEMA flood control regulations.

FEMA administers the National Flood Insurance Program (NFIP). The program provides communities and individuals with flood hazard information and provides flood insurance to property owners in participating communities. The program offers flood insurance at a reasonable cost in exchange for the careful management of flood- prone areas by local communities. Downey has joined the program, and adopted an ordinance to comply with FEMA regulations.

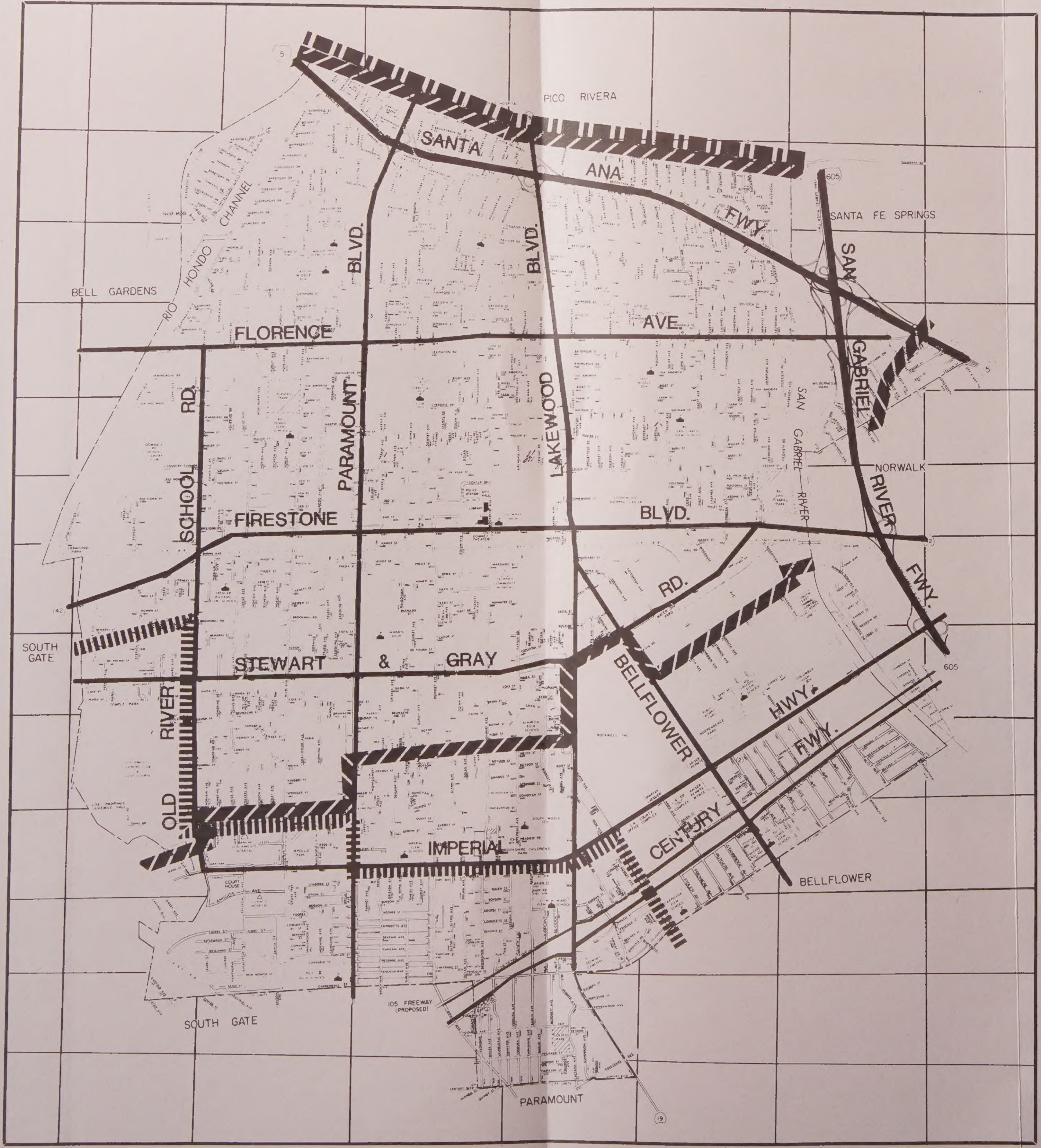
The primary purpose of flood control facilities is to protect people and their possessions from the potential hazards of periodic flooding. In Downey, flood control is provided by a network of reinforced concrete boxes (RCB), reinforced concrete pipes (RCP) and flood control channels operated and maintained by the Los Angeles County Department of Public Works. The RCB's are approximately 6 feet by 8 feet and the RCP's range in size from 27 to 72 inches. They are equipped to handle a 10-year flood.

Most flood control facilities currently are able to provide protection for a ten-year storm although several bond issue drains were designed to provide for less than ten-year protection. However, there are areas of significant deficiencies. Periodic flooding occurs on several arterial streets. To correct the flooding deficiencies, more storm drains must be added. Table 5-1 lists storm drain deficiencies.

# Legend

- ▥ ATLANTIC RICHFIELD PIPELINE
- ▤ GULF PIPELINE
- ▨ MOBILE PIPELINE

SOURCE: City of Downey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5
SANTA ANA FWY.
605
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
BLVD.
BLVD.
FLORENCE AVE.
SAN GABRIEL RIVER FWY.
5
SCHOOL RD.
PARAMOUNT
LAKEWOOD
SAN GABRIEL RIVER
NORWALK
FIRESTONE BLVD.
42
RD.
SOUTH GATE
STEWART & GRAY
605
BELLFLOWER
HWY.
OLD RIVER
FWY.
IMPERIAL
CENTURY
BELLFLOWER
105 FREEWAY (PROPOSED)
SOUTH GATE
PARAMOUNT
19

# Liquid Fuel Line Locations

## Exhibit V-3

## Safety Chapter

Not to scale.

# DOWNEY GENERAL PLAN

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## TABLE 5-1

## STORM DRAIN DEFICIENCIES

LOCATION & DESCRIPTION

1. Rives Ave. north of Quill Drive,
   Quill Drive west of Rives Ave: This is part of an area-wide drainage deficiency in the area generally bounded by Old River School Road, Paramount Boulevard, Stewart & Gray Road and Gardendale Street. This area is served by the Hollydale Storm Drain, which is operated and maintained by the Los Angeles County Department of Public Works. The Hollydale Drain is currently operating over capacity and provides storm protection for only a 2.7 year storm. Flooding condition exists even in moderate rainfalls. Relief of the Hollydale Storm Drain system and construction of a new storm drain would reduce flooding.

2. De Palma Street east of Gurley Ave.
   Gurley Ave north of De Parlma Ave; Arnett west of Gurley
   Flooding conditions exist in moderate rainfalls adjacent to Warren High School & pedestrian access is difficult during a rainstorm. Eliminating the culvert between Phlox & Arnett will alleviate the problem.

3. Firestone Boulevard west of La Reina & east of Myrtle.
   Flooding conditions occur during heavy rainfalls causing considerable damage to adjacent properties.

4. Downey Sanford Bridge Road north of Florence Avenue.
   The drainage area contributing to flood conditions encompasses about 100 acres & extends north of the Santa Ana Freeway. In recent storms, property damage ocurred due to an open culvert inadequately sized to convey large amounts of water.

5. Rives Ave. south of Farm Street to Firestone.
   Flooding conditions occur at intersections during moderate rainfalls, & create hazardous traffic situations.

6. Stewart & Gray Road east of Brookshire Avenue to Bellflower Boulevard.

Flooding conditions occur at intersections during moderate rainfalls & create hazardous traffic situations. This is part of an area-wide storm drainage deficiency North of Firestone Boulevard between the west city limit and Brookshire Avenue served by Project No. 18. Project No. 18 is operated and maintained by Los Angeles County Department of Public Works and is currently operating over capacity. Los Angeles County Department of Public Works has prepared a preliminary design of a project to correct this deficiency.

Downey is also crossed by two major flood control channels that discharge water into the Pacific Ocean. The San Gabriel River Channel is located on the easterly boundary of Downey and the Rio Hondo Flood Control Channel is located on the northwest boundary. Both flood control channels were designed and constructed by the Army Corps of Engineers and are currently maintained by the Los Angeles County Flood Control District.

The San Gabriel River Channel was improved in the early 1960's. At the same time other upstream improvements, including several dams and concrete stabilizers that keep the channel from eroding, were done. The river channel has a concrete bottom south of Whittier Narrows Dam, designed to carry 1,900 cubic feet of water per second in the vicinity of Downey.

The Rio Hondo Flood Control Channel was improved in 1955. The river channel also has a concrete bottom and is designed to carry 4,200 cubic feet of water per second. Just south of the Downey city limits, the Rio Hondo Flood Control Channel is joined by the Los Angeles River. At this location, the river channel is not entrenched below grade and the channel is contained only by levees. If a levee failed during a major storm, flooding could occur resulting in property damage and/or loss of life. The City supports the Army Corps of Engineers' flood control project, including raising of bridges and levees for river beds.

## III. FIRE PROTECTION

Primary fire hazards in Downey are structural and industrial fires. Brush fires are not common in Downey.

### Fire Department Personnel and Organization

The Downey Fire Department has four fire stations, in four corresponding fire districts (Exhibit 5.4). The estimated response time for any emergency call within the City of Downey is 4 to 6 minutes. The Fire Department has automatic aid agreements with the cities of Santa Fe Springs, Montebello and the County of Los Angeles. The agreement provides for coverage at fires by the nearest unit regardless of the jurisdictional boundary. For first-alarm residential fires in Downey, initially, two engine companies, one ladder truck, a paramedic squad and a Battalion Chief, totaling 13-14 people will respond. For a first-alarm commercial or industrial fire, three engine companies, one ladder truck, a paramedic squad and Battalion Chief, totaling 17 people responds. Additional engine and truck companies will respond for second and third-alarm fires.

### Residential Fire Hazards

Although residential fires are usually confined to single buildings, there is a danger of fires spreading to adjacent structures. In Downey, there are many residential areas with ranch style homes that feature wood roofs. Untreated wood shingle and shake roofs are particularly susceptible to spreading fires. Examples of recommended Class A roofs are concrete, tile and ferrous and copper sheet metal; recommended Class B roofs are composition, hot mop and rock roofs.

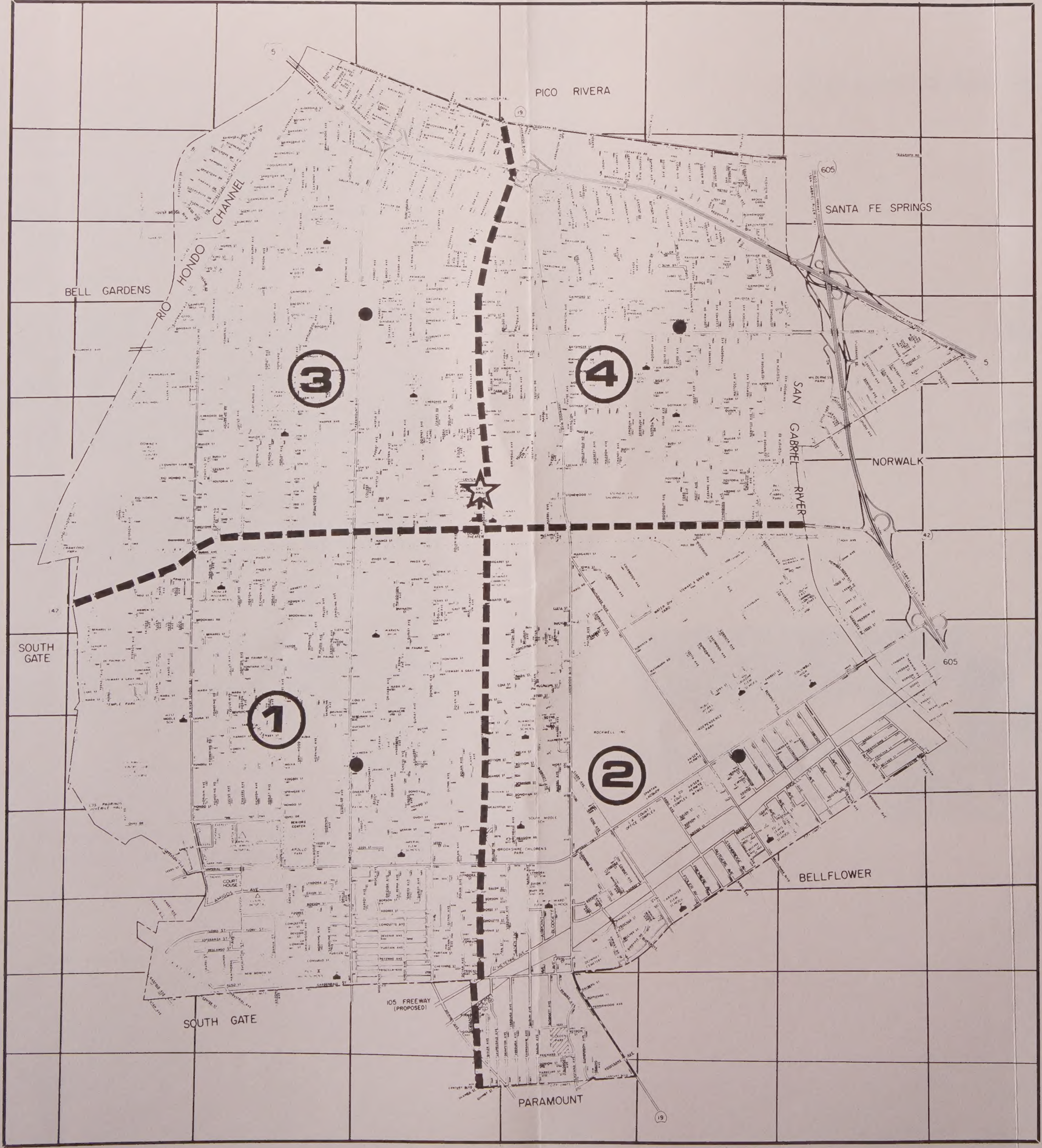
There are also many areas in Downey with homes built prior to the 1940's, another high-risk fire hazard. To reduce risk to life, new single-family homes and homes being remodeled are required to install smoke detectors. It is highly desireable to have fire sprinklers and non-wood roofs in single-family residences.

Multiple-family residential structures are a greater fire risk. Higher density residential units increase the risk of accidents that could cause fires. In addition, structural and design characteristics often make emergency response more difficult and intensify the disaster. These include design characteristics such as multiple stories, subterranean parking structures and limited access. All new apartments and condominiums are also required to install smoke detectors and fire alarms.

# Legend

- – FIRE DISTRICT BOUNDARIES
☆ FIRE DEPARTMENT HEADQUARTERS
● FIRE STATIONS

SOURCE: City of Downey


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
③
④
①
②
5
5
19
19
605
605
42
42

# Fire Station & Fire District Locations

## Exhibit V-4

## Safety Chapter

Not to scale.

**DOWNEY GENERAL PLAN**

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## Commercial and Industrial Fire Hazards

Sprinklers are required for structures greater than 10,000 square feet and fire alarm systems in buildings over 5,000 square feet. Downey also has a high-rise ordinance requiring sprinklers, alarms and other fire prevention devices in high-rise buildings. Downey's fire code defines a high-rise building as a structure with floors for human occupancy over 55 feet. The Downey Fire Department reviews and approves plans for all new and remodel construction projects to be sure they meet fire safety standards.

### Industrial Fires

There are more than 200 industries using and storing hazardous chemicals onsite in Downey. The Downey Fire Department is aware of the hazardous materials users and monitors their use and storage. The Fire Department maintains records of the amount and type of most hazardous chemicals stored at any one location, as well as the adequacy of fire protection. The Fire Department requires all businesses to submit disclosure forms reporting hazardous materials handled above minimum reportable quantity thresholds set by state and federal regulations. Reportable amounts are more than 55 gallons or 200 cubic feet or 500 pounds of any one hazardous material annually.

A Business Emergency Plan is required if the business handles reportable amounts of hazardous materials. A Risk Management Prevention Plan (RMPP) is also required for businesses handling acutely hazardous material. Hazardous Materials are further discussed in the Hazardous Waste Management Chapter of this General Plan.

### Water for Fighting Fires

Certain areas in Downey have been identified as being fire flow deficient. Fire flow is the minimum amount of water needed to fight a specific type of fire. The remedy for fire flow deficiencies is to upgrade the size of the water mains in the affected areas of the city. In Downey, many water mains are undersized; however, they are being replaced on a priority basis.

The City's water distribution system contains over 300 miles of water mains with diameters ranging from 4-inch to 24-inch. Today, for single family residential units, a 6" main is considered minimum size. There is one reservoir storing 5 million gallons of water. There is also one pressure zone in the city system. Normal water pressure is maintained between 60 and 70 pounds per square inch (psi) by a pressure control point located near the water department yard.

The City of Downey has an ISO rating of three;[1] an ISO rating of three or four is average for similar size cities in Southern California. In determining a city's fire protection rating, the ISO evaluates various factors significant in terms of community safety including water supply, structural conditions, fire alarms and fire prevention.

### Peakload Water Supply

The critical fire flow is detemined on the basis of land use projections and the fire flow rates specified by the City of Downey Fire Department. The maximum fire flow rate for the city is 5,000 gallons per minute for five hours.

### Roadway Widths

The State of California general plan law requires that safety elements indicate standards conveying the minimum road widths. This is to ensure that roads in a community will have adeqaute widths to accommodate emergency vehicles responding to fire or other emergencies. Table 5-2 indicates the minimum road widths standards for Downey. The circulation chapter of this plan also discusses roadway widths.

### TABLE 5-2

### FIRE DEPARTMENT ROADWAY STANDARDS

| Roadway Category | Width (curb to curb) | Right-of-Way |
|---|---|---|
| Freeways | Caltrans Specifications | |
| Major Roadways | 80 Feet | 100 Feet |
| Secondary Roadways | 60-64 Feet | 80 Feet |
| Collector Streets | 40 Feet | 60 Feet |
| Alleys | 20 Feet | --------- |
| Local Roads | 36 Feet | 50-60 Feet |

---

[1] The Downey Fire Department uses the Insurance Services Offices, (ISO) Guide for Determination of Required Fire Flow for fire flow requirements although certain projects may require fire flow greater than that designated. The information is used by fire insurance underwriters to determine fire insurance rates within any location, and provides the basis for grading municipal fire protection services.

## IV. POLICE PROTECTION

Crimes listed in the federal index increased in Downey. All crimes are divided into two major categories called major offenses (FBI Index Crimes) and minor offenses. The FBI Index Crimes are homicide, rape (forcible), robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft. Minor offenses are petty theft disturbances and traffic accidents.

### TABLE 5-3

### DOWNEY POLICE DEPARTMENT

### FIVE-YEAR COMPARISON

| Reports | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|
| Crimes & Incidents | 11,101 | 11,650 | 12,803 | 13,051 | 13,235 |
| Percent of Change | -9.3 | +4.9 | +9.9 | +1.9 | +1.4 |
| **F.B.I. Index Crimes** | | | | | |
| Homicide | 5 | 6 | 5 | 1 | 8 |
| Rape (Forcible) | 19 | 22 | 21 | 21 | 29 |
| Robbery | 177 | 262 | 270 | 290 | 320 |
| Aggravated Assault | 116 | 153 | 275 | 215 | 177 |
| Burglary | 901 | 863 | 899 | 1,056 | 1,080 |
| Larceny-Theft | 2,006 | 2,043 | 2,282 | 1,967 | 1,975 |
| Motor Vehicle Theft | 706 | 875 | 1,211 | 1,096 | 1,018 |
| **Total** | 3,930 | 4,224 | 4,963 | 4,646 | 4,607 |
| Percent of Change | -11.6 | +7.5 | +17.5 | -6.4 | -.8 |

Downey's Police Department receives approximately 1,000 reports per month. The estimated response time to any location within the city is 1 to 2 minutes for emergency calls and 5 to 8 minutes for nonemergency calls.

The number of officers per shift is scheduled to meet varying work loads for the different times of day. Aside from the patrol officers assigned, there is also 1 lieutenant and 3 sergeants assigned per shift. The department has 138 sworn officers.

To combat crime, the Downey Police Department offers education and citizen participation programs. The Neighborhood Watch program is a citizen participation program that encourages neighbors to report suspicious behavior and people. The DARE (Drug Awareness Resistance Education) program for elementary schools, begun in September 1986, is designed to help children stay away from drugs. GOOD (Gangs Out Of Downey), is an education program sponsored by the Downey Police, designed to give children the information necessary to stay out of gangs.

The department has mutual aid agreements with virtually all other cities in Los Angeles County except the City of Los Angeles. This agreement establishes a reciprocal law enforcement status between other cities and the City of Downey. Downey also participates in a statewide mutual aid program.

## V. LANDFILL SITE

Rio San Gabriel Park is located on the site of an old landfill. Although the landfill was abandoned many years ago, it is possible that it could pose a threat to public health or the environment. Problems known to be associated with abandoned and closed sites include subsidence (sinking of the earth's surface), odors and the emission of toxic or explosive gases. Toxic or explosive gases common at landfill sites are methane and hydrogen sulfite.

## VI. AIR TRAFFIC

Airplane and helicopter traffic over Downey is significant, and should an air accident occur, resident's lives would be in danger. Downey lies under the flight path to Los Angeles International Airport (LAX). In a normal day, 75 + flights an hour go over Downey to LAX.

There are also two active helicopter sites within Downey. Rockwell International Corporation operates approximately 10 flights a day from its groundlevel helipad east of Bellflower Boulevard and north of Independence Park. The flights are between the hours of 8:00 a.m. and 5:p.m.

A second helicopter pad is located at Downey Community Hospital. Lifelight provides emergency air service to this helipad, and there are, on the average, approximately 6 flights per month. There is a third helipad at Rancho Los Amigos Hospital; however, it is currently inactive.

The number of flights over Downey is regulated by the FAA (Federal Aviation Administration). The FAA is a higher governmental entity than the city, thus it supersedes the City's authority. The City can, however, make the FAA aware of its concern for Downey residents' safety.

In the event of an air disaster, the City has adopted an emergency preparedness plan specifying the city's response in a major emergency.

## VII. STREET LIGHTS AND SIDEWALKS

Many areas in Downey do not have street lights or sidewalks. The City installs them when a majority of residents on the block agree to join an assessment district to pay for them, or the City requires developers to install them when constructing a new project. Sidewalks should be installed along major arterials, collector streets and school routes.

## VIII. TRAIN TRACKS

Train tracks paralleling Firestone Boulevard divide the city in half (Exhibit 5.5). In an emergency they could prevent emergency equipment from reaching the hospital quickly. There are two rail lines in Downey. The Southern Pacific Railroad uses the tracks that divide the city. Approximately four to eight trains use this line per day. Trains could prevent north Downey resident's from reaching Downey Community Hospital quickly, and could prevent police from reaching south Downey quickly.

The Union Pacific Transportation Company line crosses the city limits on the western boundary, south of Imperial Highway, in the Rancho Business Park. Trains on this track are not considered a safety hazard.

Train traffic is regulated by the Public Utility Commission, an agency that also supersedes local control. However, the city can make the PUC aware of its concern and work with the Southern Pacific Railroad to construct grade separations at Brookshire Avenue, Lakewood Boulevard and Woodruff Avenue.

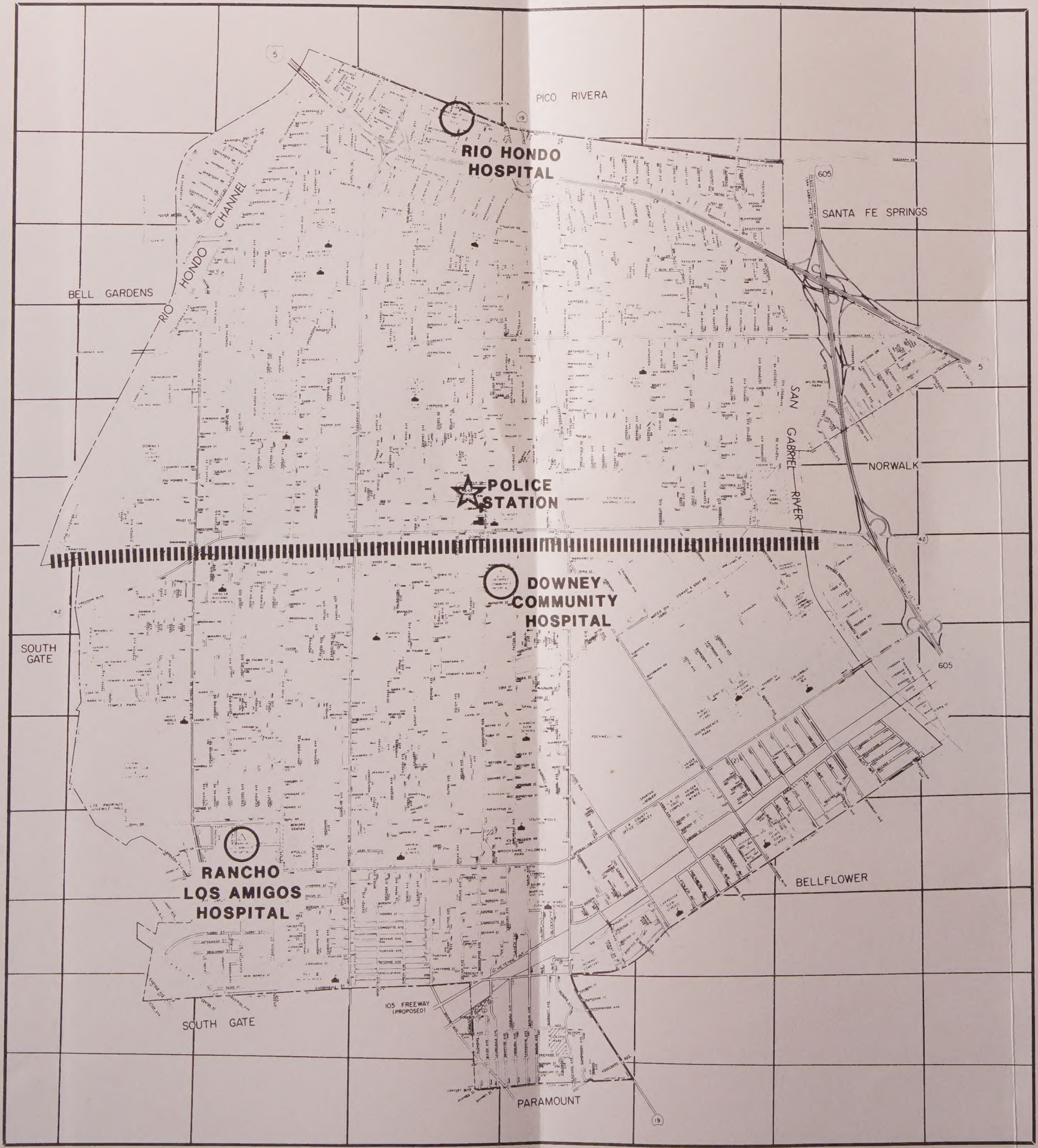
# Legend

▥ **SOUTHERN PACIFIC R.R.**

☆ **POLICE STATION**

○ **HOSPITALS**

SOURCE: City of Downey


PICO RIVERA
RIO HONDO HOSPITAL
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SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
SAN GABRIEL RIVER
NORWALK
POLICE STATION
42
DOWNEY COMMUNITY HOSPITAL
SOUTH GATE
605
BELLFLOWER
RANCHO LOS AMIGOS HOSPITAL
105 FREEWAY (PROPOSED)
SOUTH GATE
PARAMOUNT
19

# Train Tracks

## Exhibit V-5

## Safety Chapter

Not to scale.

**DOWNEY GENERAL PLAN**

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## IX. TOPOGRAPHY

Because Downey is on a relatively flat terrain, geologic hazards, such as slope instability, subsidence, settling and erosion are not considered major hazards for the city.

Downey's topographic features are fairly uniform throughout the area and most of the land is suitable for development. The greatest percentage of slope change in most cases is 0 to 5 percent, with an average of 0.25 percent.

The soil types in Downey, as discussed previously, are Hanford Sands, Tujunga Sands and Chino Silt Loam (see Exhibit 5.2). The following describes each soil type:

- Hanford Sands-Consists of well-drained, nearly level to sloping soils that formed on valley floors and alluvial fans. Runoff is slow and the hazard of erosion is slight.
- Tujunga Sands-Nearly level to gently sloping soil found on long alluvial fans. Runoff is slow to very slow and the hazard to water erosion is slight.
- Chino Silt Loam-Nearly level soils found in smooth areas on alluvial valley bottoms and basins. Runoff is slow and the erosion hazard is slight. The soil may be ponded for short periods during the long winter rains.

The threat of water erosion in Downey is slight.

## X. DISASTER RESPONSE

The state requires cities to have an emergency plan that specifies how the city will respond when a major emergency occurs. Downey's emergency plan defines policies and procedures to be followed in the event of a major fire, earthquake, air disaster, chemical explosion, leak of dangerous fuels, flooding or a state of war. To effectively and economically use material and manpower resources for the maximum benefit of the civilian population in a time of emergency, the plan:

1. Defines roles and responsibilities of city employees;
2. Provides for the allocation of critical resources;
3. Establishes a basis for mutual aid between and among public agencies at such times.

The objectives of the plan are:

1. Save lives and protect property;
2. Repair and restore essential systems and services;
3. Provide a basis for direction and control of emergency operations;
4. Provide for the protection, use and distribution of remaining resources;
5. Provide for the continuity of government;
6. Coordinate operations with the emergency service organizations of other jurisdictions.

Methods of organization and detailed task assignments are included in the emergency plan. Plans for contingent situations are also included to deal with lines of succession, temporary seat of government, preservation of records and similar concerns. All city employees are registered disaster service workers. When an emergency organization is activated, the City Manager directs disaster response activities with the fire and police departments.
Department heads and other city officials will serve as deputy directors in the emergency operation; other city employees will serve as support personnel for providing specific information, analysis and services. The additional support services include: communications, housing and shelter, health and medical, welfare, fire and rescue, law enforcement and traffic control, public works, utilities, transportation and building and safety.

## Emergency Operating Center (EOC)

Downey's EOC is temporarily located at Fire Station #1, at 12222 Paramount Boulevard. In a disaster, the EOC would become the command post for coordinating manpower, equipment, resources and facilities. Using the communications network, the disaster coordinator will be able to assemble information in the field, assess the situation throughout the city, keep the general public informed at all times and determine the proper channels to successfully allocate available resources and disaster services.

The EOC is equipped to handle all disasters that occur within the city and it has the capability to help adjoining communities as well as the region. During an emergency the EOC will be staffed with personnel to analyze information to be forwarded to the disaster coordinator.

## Communications

During a major disaster, such as an earthquake or flood, access to communications lines is vital to human life and safety. Open communication lines between emergency facilities within the city and with facilities outside the city are essential. Through the EOC, the city has access to a variety of radio, telephone and telecommunication resources including:

- EOC city government radio network, including the mobile communications center;
- existing radio networks of the fire, police,
  public works and community development departments;
- Downey amateur radio operators;

Aside from maintaining open communication, it is also essential to maintain a functioning transportation system and operational public utilities. Without them, Downey would suffer great losses in an emergency.

## Evacuation

It may be necessary to evacuate portions of the city. Events which could trigger evacuation include earthquakes, air disaster, major fires, chemical explosions, leakage of dangerous fuels and flooding. Evacuation procedures would be coordinated through the police department. Through radio announcements and helicopter loudspeakers, citizens of an evacuation area could be alerted. There are designated evacuation routes (Exhibit 5.6); however, it is impossible to determine the exact areas that may be subject to evacuation or to establish a definite evacuation route.

Regardless of the areas affected by possible evacuation, good reliable information is of greatest importance. The extent of the potential danger, what areas could be affected, what direction provides the safest route of escape, and other similar types of information are essential to an evacuation operation. To prepare, a determination should be made of critical points throughout the city which would be necessary in order to evacuate various areas. Teams of police personnel would be assigned to traffic control points that could include major arterials and traffic interchanges. In the event of a disaster, these personnel would be responsible for checking and reporting the condition of the major evacuation points to the EOC. With this information readily available, disaster coordinators could more quickly determine the most appropriate evacuation strategy.

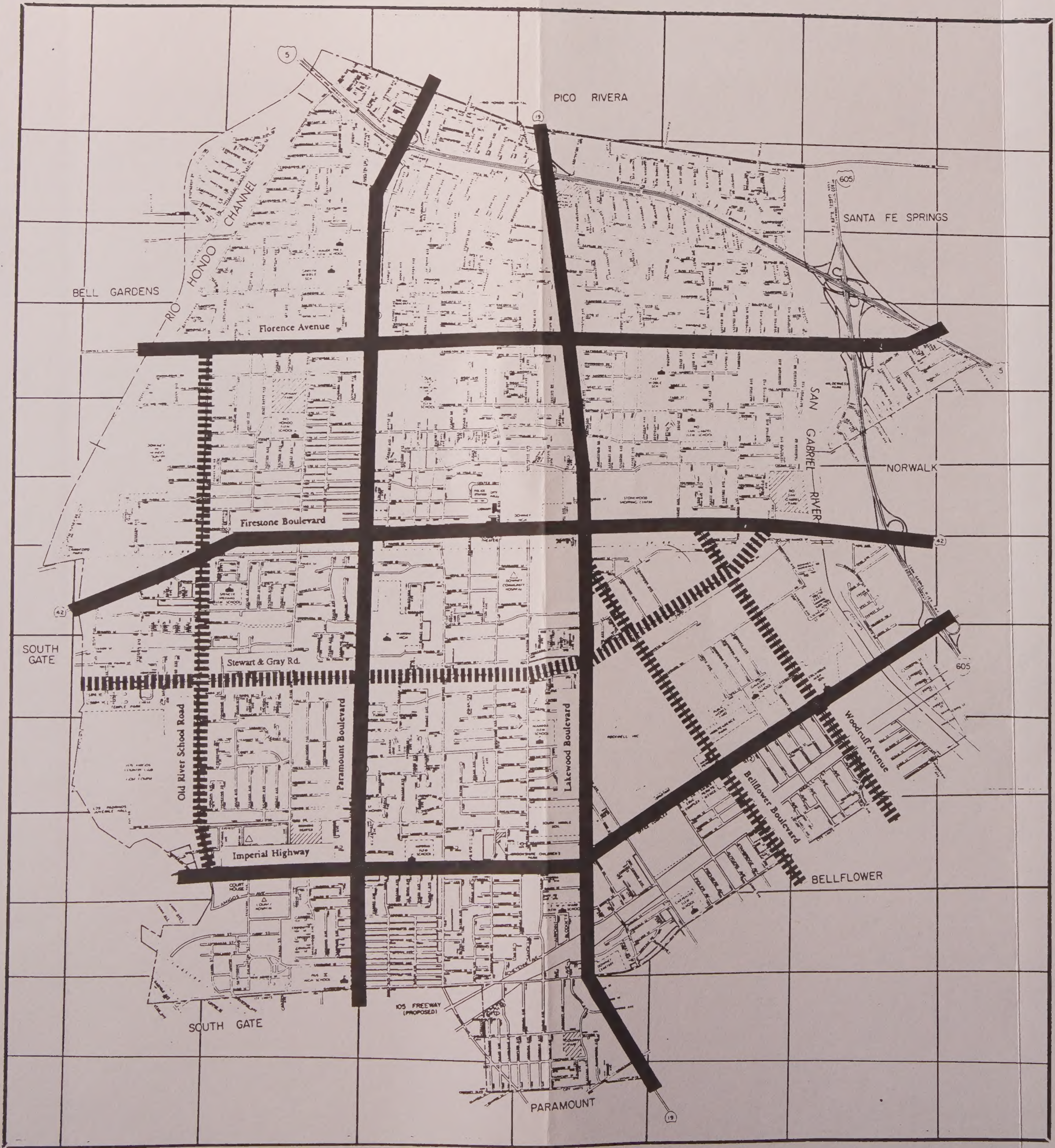
In a major earthquake, numerous traffic corridors could be severed. Freeways, in particular, have proven to be unreliable, primarily because of bridge structures. The partial collapse of any one bridge structure or embankment fill cripples that freeway. Also some, but probably not all, roads which pass below or over freeways will not be passable after a major event. Should damages be that extensive, the city could be isolated.

Since it would involve a great deal of time to repair those roadways, the city may have to provide the population with food, medical supplies and other essentials. Therefore, should the streets and freeway systems be so impaired as to cut off supplies from other areas, access to the city would be only by air. Because of Downey's location, it is essential that there be total cooperation with adjoining communities to assure that ample supplies will be available to sustain itself should such a major catastrophe occur.

## LEGEND

▬ PRIMARY EVACUATION ROUTES

▥ SECONDARY EVACUATION ROUTES



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PICO RIVERA
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SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
Florence Avenue
SAN GABRIEL RIVER
NORWALK
Firestone Boulevard
42
SOUTH GATE
Stewart & Gray Rd.
605
Woodruff Avenue
Old River School Road
Paramount Boulevard
Lakewood Boulevard
Bellflower Boulevard
BELLFLOWER
Imperial Highway
105 FREEWAY (PROPOSED)
SOUTH GATE
PARAMOUNT
19

**SOURCE: City of Downey**

# EVACUATION ROUTES

## EXHIBIT V-6

## SAFETY CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

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### Community Resources

There are many physical resources within Downey that could be used to provide needed shelter, medical treatment, or other necessary services, but there are no licensed fallout shelters. For hospital care, Downey is served by Downey Community, Rio Hondo Memorial and Rancho Los Amigos Hospitals. First aid centers can be provided through the conversion of public schools and other public facilities. In addition, auxiliary and convalescent hospitals are also available for the treatment and care of disaster victims. Rio Hondo Golf Course and Apollo Park are designated Casualty Collection Points. When activated, these locations will be utilized by the County to air-evacuate the injured to other medical facilities.

### Disaster Assistance

The city may call upon the County, State of California or the Federal Government to obtain assistance in handling any disaster. Los Angeles County is subdivided into seven civil defense areas, with Downey located in Area E. Civil defense operations from other jurisdictions will provide recovery aid should it be warranted under the State Mutual Aid Pact. Both the state and federal governments have established programs allowing local communities to apply for financial and other types of assistance.

a:safety.gp

# D·O·W·N·E·Y GENERAL PLAN

# NOISE CHAPTER

# NOISE CHAPTER

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# NOISE

The Noise Chapter is a program for establishing and maintaining various land uses in relationship to the levels of noise found in our environment. The Chapter follows the guidelines in the State Government Code, Section 65302(f).

The Noise Chapter identifies Downey's major noise sources, describes the existing and projected levels of noise from major noise sources, and develops programs to ensure that Downey residents will be protected from excessive noise levels. The information found in this Chapter will also be used to identify land use policies related to noise. Further, it will provide baseline noise levels and noise source identification for the enforcement of Downey's Noise Ordinance. A Technical Appendix has been provided at the end of the Chapter to give background information with a glossary that defines key terms.

## NOISE ISSUES

### Issue One

Noise in Downey is primarily caused by automobile and truck traffic.

### Issue Two

Trains, airplanes and helicopters are also a source of noise in Downey.

### Issue Three

There are several stationary noise sources in Downey.

## GOAL, ISSUES, POLICIES AND PROGRAMS

The following goal, policies and programs have been developed to address noise issues in the City of Downey.

### GOAL

Maintain or reduce noise from stationary and non-stationary sources throughout the city.

- **Issue One**

Noise in Downey is primarily caused by automobile and truck traffic.

### Policies

6.1.1 The City shall require noise reduction measures in all new construction where necessary.

6.1.2 The City shall require that noise sensitive land uses be located away from major noise sources.

6.1.3 The City's noise standards shall be 45 dB CNEL interior and 60 dB CNEL exterior.

### Programs

The City shall:

6.1.1.1 Encourage Caltrans to install barriers, berms and/or landscaped open space along the Century Freeway to reduce freeway noise.

6.1.1.2 Require the preparation and submittal of acoustical reports by a recognized acoustical engineer for noise sensitive land use developments that will be located in areas with an exterior noise level greater than 60 dB CNEL. These reports shall identify appropriate noise mitigation measures to address the noise impacts.

6.1.2.1 Coordinate with and encourage Caltrans to complete the installation of all freeway sound walls by the year 2001.

6.1.2.2 Encourage and enforce truck traffic to use designated truck routes in the City.

6.1.2.3 Modify the phasing of traffic signals during peak hours on major streets to lessen by-pass traffic in residential areas.

6.1.2.4 Enforce the State motor vehicle noise standards for cars, trucks, and motorcycles through coordination with the Downey Police Department and the California Highway Patrol.

6.1.2.5 Review City operations to ensure that noise from its own actions, such as refuse collection and street cleaning, are reduced to the lowest possible level and lessen the contribution to noise pollution.

6.1.2.6 Promote the enforcement of City speed limits to protect residential streets from business and commuter through traffic.

6.1.3.1 Require all new residential development in areas with an exterior noise level greater than 60 dB CNEL to reduce the exterior noise impacts to insure interior noise levels are kept at acceptable levels. Noise reduction methods include, but are not limited to: double-paned windows, insulation, landscape barriers, facade treatment, and buffer walls.

- **Issue Two**

Trains, airplanes and helicopters are also a major source of noise in Downey.

**Policies**

6.2.1 The City shall work with the railroad companies in developing and implementing noise reduction methods in their operations.

6.2.2 The City shall work with the Federal Aviation Administration, the Division of Aeronautics, and the Los Angeles County Airport Land Use Commission to develop guidelines for addressing airplane and helicopter noise.

6.2.3 The City shall work with the Southern Pacific Railroad line and developers to help integrate the railroad with its surroundings.

**Programs**

The City shall:

6.2.1.1 Encourage railroad companies to develop and implement programs to minimize train pass-by and switching movement noise, especially near noise-sensitive areas and during the night.

6.2.1.2 Require the railroad companies to install rubberized railroad crossings at intersections.

6.2.1.3 Require new noise-sensitive developments along railroad corridors to prepare and submit noise studies.

6.2.1.4 Identify and concentrate land uses with high traffic generation near major transportation corridors and public transit facilities.

6.2.2.1 Recommend that the Federal Aviation Administration (FAA) divert air traffic from the Downey flight path.

6.2.2.2 Examine the development of an ordinance and standards relating to the siting of helipads in the city.

6.2.3.1 Require contributions from developers adjoining railroad right-of-ways to pay for improved signals, rubberized railroad crossings, and related crossing improvements.

- **Issue Three**

There are several stationary noise sources in Downey.

**Policies**

6.3.1 The City shall enforce the existing noise ordinance and revise the ordinance, when necessary, to address changes in technology.

**Programs**

The City shall:

6.3.1.1 Develop performance standards to address noise generators and their impacts on the community.

6.3.1.2 Periodically review the Noise Chapter of the Municipal Code and establish new noise performance standards as necessary.

6.3.1.3 Require stationary noise sources that generate noise beyond the acceptable levels to incorporate mitigation measures to bring the noise into compliance with the Noise Ordinance of the city.

## I. BACKGROUND

### • Noise Definitions and Measurement

Sound is described in terms of the loudness (amplitude) and the frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale has been developed to measure sound in a manner similar to the way the human hearing system responds. The use of the A-weighted scale is indicated by using the abbreviation "dB(A)".

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure level to a more usable range of numbers, similar to the way the Richter Scale measures earthquakes. For example, a sound 10 dB(A) higher than another is judged to be twice as loud, and a sound 20 dB(A) higher is judged to be four times as loud, and so on.

A number of noise scales have been developed to quantify noise exposure over long periods of time (usually 24 hours). One example is the Community Noise Equivalent Level. The State of California uses the Community Noise Equivalent Level (CNEL) for noise standards and guidelines.

A CNEL measurement is an average of all the sounds that occur during a 24-hour day. A 5 decibel penalty is added to sound levels occurring between 7 p.m. and 10 p.m. and a 10 decibel penalty is added to sound levels occurring between 10 p.m. and 7 a.m. The 5 and 10 decibel penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. Since CNEL represents noise exposure averaged on a daily basis, people do not hear a CNEL value but do hear individual noise events.

### • Effects of Noise

Noise can be defined as unwanted sound and is known to have several adverse effects on people. Typical sound levels are depicted in Exhibit 6.1. The most critical impact of noise exposure is hearing loss. Other effects are speech interference, sleep interference and annoyance.

Sound levels below 50 dB(A) are generally acceptable, whereas complaints are more likely at 70 dB(A). Although there is no health hazard within the City of Downey, the existing

# Typical A-Weighted Sound Levels

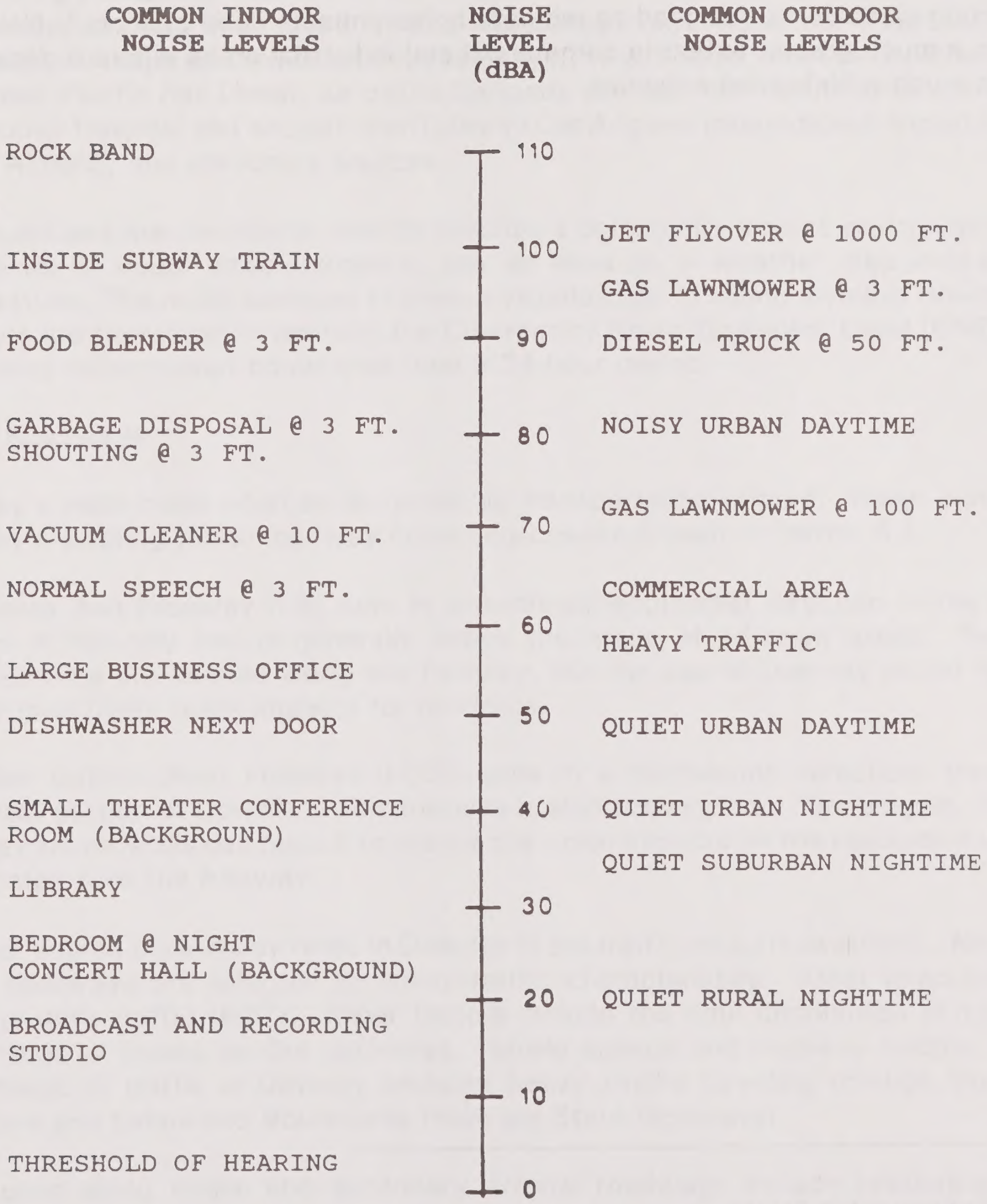

**Exhibit VI-1**

Source: Caltrans Noise Manual, California State Dept. of Transportation. March 1980, pg. I-1-4.

and future noise contours for the City[1] identify areas where outdoor speech interference can occur and a small percentage of the population will be highly annoyed.

Activity, or land use, is also a factor in sensitivity to noise. Noise can distract from reading, studying, sleeping and listening; making residential land uses, schools and libraries vulnerable to noise intrusion. For example, there is a State law regarding freeway noise affecting classrooms designed to mitigate noise impacts upon schools.[2] Noise is tolerated to a much greater extent in commercial and industrial areas where it does not interfere as much with human activities.

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[1] Identified later in this Chapter.

[2] California Streets and Highways Code, Division 1, State Highways, Chapter 1, Administration, Article VI; Section 2166, as amended.

## II. NOISE SOURCES

The sources of noise in Downey fall into four categories. These are: roadways (the I-5 and I-605 and major and minor arterial roadways); two railroad lines (the Southern Pacific and Union Pacific Rail Lines); air traffic (helipads at Rockwell International and Downey Community Hospital and aircraft overflights to Los Angeles International Airport and Long Beach Airport); and stationary sources.

Noise contours are commonly used to describe a community's noise environment and to link points of equal noise exposure, just as lines on a weather map indicate equal temperature. The noise contours provide a visualization of sound levels in Downey. The contours are expressed in terms of the Community Noise Equivalent Level (CNEL) which represents noise impact boundaries over a 24-hour period.

- **Roadways**

Downey's main noise sources are primarily transportation related. Noise contours for Downey's existing major roadway noise sources are shown in Exhibit 6.2.

The Santa Ana Freeway (I-5) runs in a northeast-southwest direction in the northern portion of the city and is generally above the grade of adjacent areas. Residential developments are located along the freeway, but the use of freeway sound walls has helped to mitigate noise impacts for residents.

The San Gabriel River Freeway (I-605) runs in a north-south direction, through the northeast portion of Downey. This freeway is also above grade. Once again, the use of freeway sound walls has helped to reduce the noise impacts on the residential units that are located near the freeway.

Another source of roadway noise in Downey is the traffic on surface streets. Noise levels along roadways are affected by many traffic characteristics. Most important is the average daily traffic (ADT). Other factors include the time distribution of traffic, the percentage of trucks on the roadways, vehicle speeds and roadway widths. A large percentage of traffic in Downey includes heavy trucks traveling through Downey on Firestone and Lakewood Boulevards (both are State Highways).

Land uses along major and secondary arterial roadways include residential (mainly multiple-family and some single-family residences) as well as commercial and industrial. Many of these residences are exposed to noise levels greater than 65 dB CNEL.

Roadways in Downey with substantial traffic volumes and roadway noise impacts include:[3]

- San Gabriel Freeway
- Santa Ana Freeway
- Firestone Boulevard
- Florence Avenue
- Imperial Highway
- Lakewood Boulevard
- Paramount Boulevard
- Rosecrans Avenue
- Stewart & Gray Road
- Studebaker Road
- Telegraph Road

- **Rail Activity**

Two rail lines cross the City of Downey. The Southern Pacific Transportation Company line bisects the community, and runs east/west approximately parallel to Firestone Boulevard. This is a main line route to Pico Rivera, Whittier and the City of Industry. The Union Pacific Transportation Company line crosses the City limits on the western boundary, south of Imperial Highway near the Rancho Business Park.

Approximately four to eight trains use these lines each day. Because the rail lines are private property, there is no limit on the number of trains that can pass through the city. Activity on the rail lines varies due to the following conditions: type of freight, season of the year and time of day, making it difficult to predict an average number of trains that pass through the city.[4]

In addition to the rail lines that are located in the City of Downey, commuter light rail service is planned for the area. The Green Line will operate along the new Century Freeway (I-105) right-of-way. According to the Los Angeles County Transportation Commission (LACTC), the Green Line is expected to be operational in October of 1994. The Century Freeway is depressed throughout the City of Downey, so noise impacts will be lessened. Because we have no information regarding the number of trains that will be running along the Green Line, no estimates on future noise impacts can be made.

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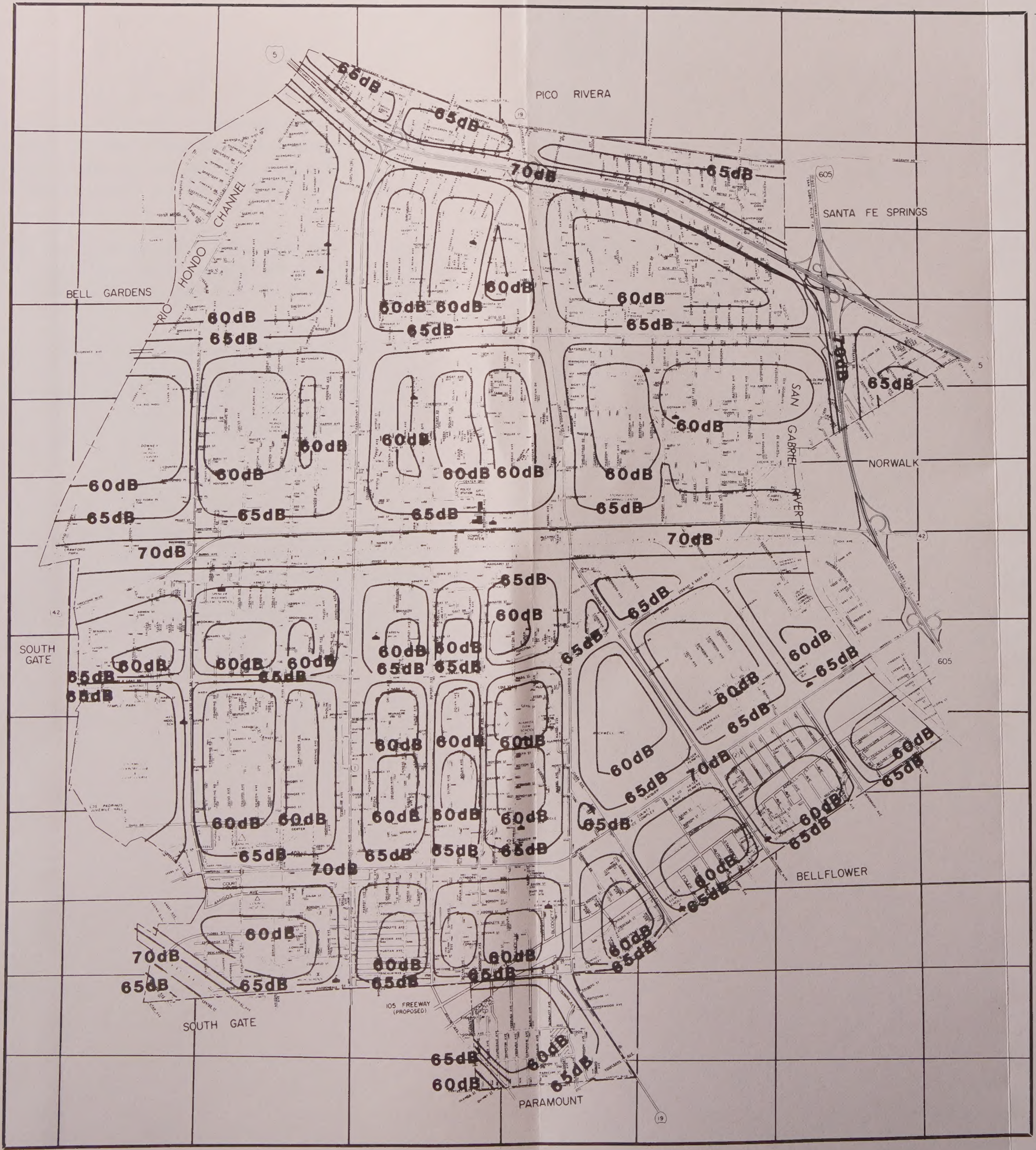
[3] Specific average daily traffic figures and noise contours are given in the Technical Appendix.

[4] Tom Barcelo of the Railroad Safety Section of the Public Utilities Commission.

# Legend

—65dB— Noise Contours

SOURCE: City of Downey


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
605
19
42
60dB
65dB
70dB

# Existing CNEL Noise Contours

## Exhibit VI-2

## Noise Chapter

Not to scale.

# DOWNEY GENERAL PLAN

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- **Air Traffic**

Aircraft is a source of noise within the City of Downey. Two helicopter landing sites currently operate within the City of Downey. Rockwell International Corporation operates a ground-level helipad east of Bellflower Boulevard and north of Independence Park. Corporate Bell Model 206 Jet Ranger helicopters execute approximately 10 flights per day between 8 a.m. and 5 p.m.[5]

A second helicopter pad is located at the Downey Community Hospital. Lifeflight provides emergency air service to this helipad, and operations are estimated at 6 flights per month (these flights are for life-threatening emergencies only, they are not commercial flights).[6]

In addition, airplane traffic over Downey is significant. Downey lies along the flight path to Los Angeles International Airport and Long Beach Airport. These aircraft flights are noticeable above the background noise environment in the city. Flight paths are regulated by the Federal Aviation Administration (FAA). Flight patterns change under various conditions: wind conditions, weather conditions, time of day, etc.; all of which impact Downey.

- **Stationary Sources**

Sources of stationary noise within the City of Downey include commercial and industrial operations. The primary noise associated with these facilities is auto and truck traffic making deliveries. Additional noise sources include heavy equipment, air compressors, generators, and outdoor public address systems. One example of a stationary noise source is the car dealerships along Firestone Boulevard which have paging systems that are audible in adjacent residential areas.

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[5] Linda Fairchild of Rockwell International.

[6] Mike Shubin of the Downey Community Hospital.

## III. FUTURE NOISE ENVIRONMENT

The City of Downey is a fully developed community with relatively few areas vacant for additional development. Downey and the surrounding areas are older communities where development has been in place for many years; substantial growth within the area is not taking place. Increases in traffic will lead to more noise in the community. Any growth that may occur in Downey will be off set by the requirements of the Congestion Management Program and AQMD (Air Quality) requirements for travel reduction programs. An actual growth rate was not used, but the projected population growth rate of 13 percent was used to project traffic increases. In addition to an incremental increase in traffic on existing roadways, the construction and future operation of vehicles on the Century Freeway (I-105) will introduce a major new noise source to areas in the southern portion of Downey.

Projected CNEL noise contours are depicted in Exhibit 6.3. The Century Freeway noise contours consider a 30-foot depressed roadway with a 9-foot high sound wall at existing grade from Woodruff Avenue to the westerly city limits. The future noise contours indicate a slight increase in traffic and noise for all existing major roads in Downey. No projections were available regarding future rail movement or helicopter operations to predict future noise levels or contours.

## IV. LAND USE CONSIDERATIONS

Noise concerns must be incorporated into land use planning to reduce future noise and land use incompatibilities. Local governments have little direct control over transportation-related noise at its source. Federal and state agencies pre-empt local control of noise emissions from aircraft, railroads, interstate highways and motor vehicles. The most effective method Downey has to mitigate transportation noise is by the implementation of land use controls that would limit the placement of noise sensitive land uses in high noise impact areas (see Exhibit 6.4).

Noise control programs involve federal, state and city agencies. Enforcing and implementing Downey's various noise regulations and guidelines are the responsibility of the Community Development Department and the Police Department. The Community Development Department enforces existing zoning and subdivision ordinances and will incorporate the goals, policies and implementation programs of this Noise Chapter into the planning process. Proposed developments are evaluated in terms of the projected impact from existing and future noise sources.

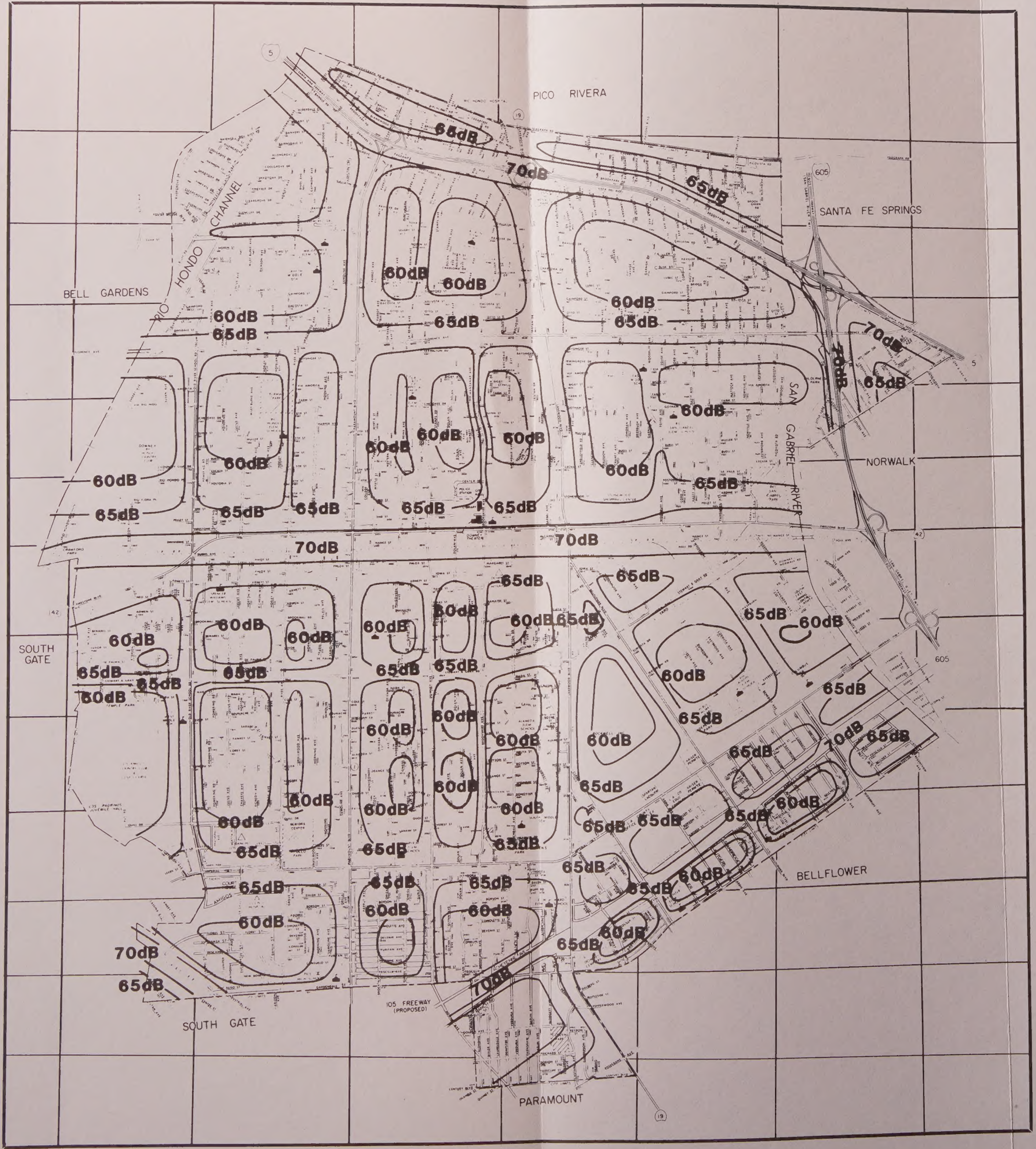
Proposed residential and other noise-sensitive projects impacted by 60 dB CNEL or greater should be required to prepare an acoustical analysis to ensure acceptable interior and exterior noise levels. These analyses will be prepared by a recognized acoustical engineer with experience in environmental noise assessment and noise control design and be submitted to Downey's Community Development Department for review and approval. Noise sensitive land uses include, but are not limited to: residences of all types, hospitals, rest homes, convalescent hospitals, places of worship, libraries, and schools.

In addition to federal and state noise standards, the City of Downey has adopted noise standards in the Downey Municipal Code, Chapter 6, Unnecessary Noise. These standards include nuisance criteria and maximum permissible noise levels for noise sources not operating on a public right-of-way (see Table 6.1).

## Legend

| | |
|---|---|
| —70dB— | **Noise Contours** |

**SOURCE: City of Downey**


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
19
605
42
70dB
65dB
60dB

# Projected CNEL Noise Contours

## Year 2000

## Exhibit VI-3

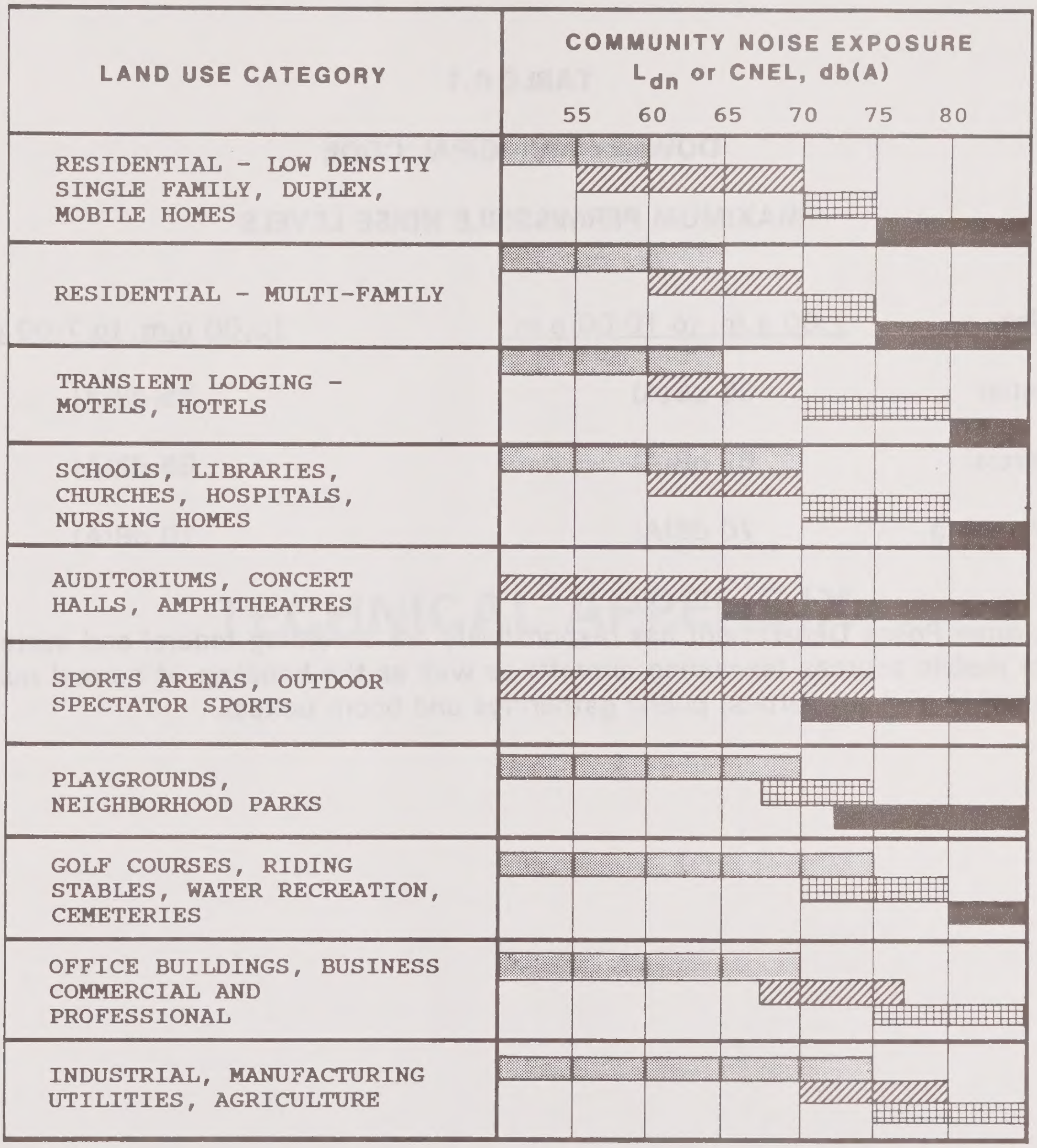
## Noise Chapter

Not to scale.

# DOWNEY GENERAL PLAN

*Vision* 2010

# Land Use Compatability for Community Noise Environments



░ NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

▨ CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

▦ NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

■ CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

**Exhibit VI-4**

Vision 2010

## TABLE 6.1

## DOWNEY MUNICIPAL CODE

## MAXIMUM PERMISSIBLE NOISE LEVELS

| Land Use | 7:00 a.m. to 10:00 p.m. | 10:00 p.m. to 7:00 a.m. |
|---|---|---|
| Residential | 55 dB(A) | 45 dB(A) |
| Commercial | 65 dB(A) | 65 dB(A) |
| Manufacturing | 70 dB(A) | 70 dB(A) |

The Downey Police Department has responsibility for enforcing federal and state noise laws for mobile sources (excluding aircraft) as well as the handling of normal nuisance complaints (e.g., loud parties, public gatherings and boom boxes).

# TECHNICAL APPENDIX

## I. NOISE GLOSSARY

- **A-Weighted Sound Level {dB(A)}**---The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and provides good correlation with subjective reactions to noise.

- **Ambient Noise Level**---The composite noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

- **Community Noise Equivalent Level (CNEL)**---The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels occurring during the evening from 7 p.m. to 10 p.m. and the addition of ten decibels to sound levels occurring during the night from 10 p.m. to 7 a.m. The 5 and 10 decibel penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The CNEL represents the daily energy noise exposure averaged on an annual basis. The State of California uses the dB CNEL index to relate community noise exposure to compatibility criteria.

- **Day-Night Average Level ($L_{dn}$)**---The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels occurring during the nighttime from 10 p.m. to 7 a.m. The 10 decibel penalty is applied to account for increased noise sensitivity during the nighttime hours. The $L_{dn}$ represents the daily energy noise exposure averaged on an annual basis and is typically within plus or minus 1 dB CNEL.

- **Decibel (dB)**---A unit for measuring sound pressure level and is equal to 10 times the logarithm (to the base 10) of the ratio of the measured sound pressure squared to a reference pressure (i.e., 20 micropascals) squared.

- **Equivalent Sound Level ($L_{eq}$)**---The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. An $L_{eq}$ value is designed to average all of the loud and quiet sound levels occurring over a time period. For example, during a 15-minute period, the peak noise level may be 80 dB(A) from a truck and the background noise level 62 dB(A). With this fluctuation in noise levels, the Leq value might calculate to be 75 dB(A).

- **$L_{10}$**---The A-weighted sound level exceeded 10 percent of the sample time. Similarly, $L_{50}$, $L_{90}$, etc.

- **Noise**---Any unwanted sound, or sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.

- **Noise Attenuation**---The ability of a material, substance or medium to reduce the noise level from one place to another or between one room and another. Noise attenuation is specified in decibels.

- **Noise Contours**---The lines drawn around a noise source indicating constant or equal levels of noise exposure from that source.

- **Noise Sensitive Land Use**---Uses associated with indoor and/or outdoor human activities that may be subject to stress and/or significant interference from noise. Such human activity typically occurs daily for continuous periods of 24 hours or is of such a nature that noise is significantly disruptive to activities that occur for short periods. Specifically, noise sensitive land uses include: residences of all types, hospitals, rest homes, convalescent hospitals, places of worship, libraries and schools.

## II. COMMUNITY NOISE SURVEY

A field noise measurement survey was conducted on August 28, 1986, to document Downey's existing noise environment. Noise levels were recorded at ten representative locations within Downey. The locations are identified in Exhibit 6.5 and include residential areas near the Santa Ana (I-5) and San Gabriel River (I-605) Freeways, schools, Rancho Los Amigos Medical Center, Furman Park and the Civic Center.

The measured noise levels for all 10 locations are summarized in Table 6.2. Table 6.2 provides the $L_{max}$, $L_{10}$, $L_{50}$, $L_{90}$, and Equivalent Sound Level ($L_{eq}$) noise levels in dB(A) for a 15-minute sample at each of the locations.

These measurements are helpful for providing a meaningful representation of individual sound events and can be used to develop performance standards to address noise generators and their impacts on Downey. Performance standards are a means for measuring the effects of a given situation; such as noise, so that when a condition exceeds the acceptable level or range of the standard, adequate enforcement to reduce the effect can then occur. The ability to measure a violation reduces the subjectivity of enforcement by increasing its objectivity.

## TABLE 6.2

## NOISE MEASUREMENTS BY SITE

| Site | $L_{max}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ | $L_{eq}$ |
|---|---|---|---|---|---|
| 1-Civic Center | 70 | 53 | 48 | 45 | 52 |
| 2-Residential | 68 | 54 | 45 | 41 | 51 |
| 3-Residential | 75 | 59 | 52 | 48 | 56 |
| 4-Residential | 67 | 51 | 47 | 44 | 50 |
| 5-Price School | 80 | 67 | 62 | 58 | 65 |
| 6-Furman Park | 71 | 58 | 51 | 46 | 56 |
| 7-West Middle | 68 | 52 | 47 | 45 | 52 |
| 8-Rancho | 73 | 60 | 54 | 51 | 57 |
| 9-South Middle | 69 | 54 | 48 | 45 | 51 |
| 10-Residential | 64 | 53 | 47 | 44 | 50 |

a $L_{max}$ is the maximum sound level measured during the sampling period.
b $L_{10}$ is the sound level exceeded 10 percent of the noise measurement duration; considered to be the "near peak".
c $L_{50}$ is the sound level exceeded 50 percent of the noise measurement duration; the "median" level.
d $L_{90}$ is the sound level exceeded 90 percent of the noise measurement duration; the "background" level.
e $L_{eq}$ is an average of all the sounds occurring over the measurement period.

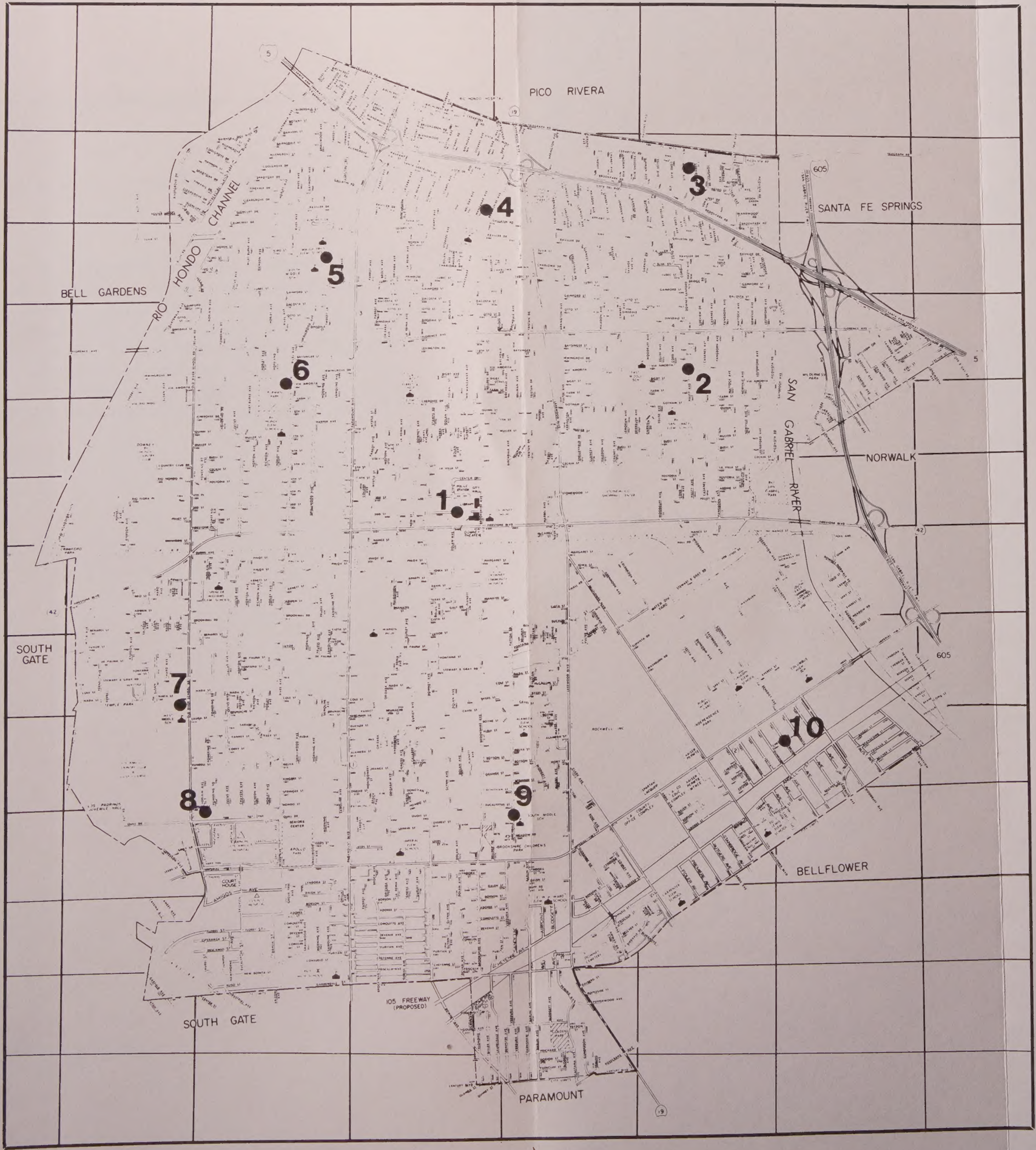
Locations 2, 3, 4 and 10 were residential locations not far from a freeway. Locations 3 and 4 were on either side of the Santa Ana Freeway and truck traffic on the freeway was barely audible. This supports the substantial noise reduction benefits derived from the freeway sound walls.

Noise measurements were recorded at three schools; Price School (Location 5), West Middle School (Location 7) and South Middle School (Location 9). The highest levels of any location were recorded at Price School and were a result of roadway traffic, aircraft overflights and school activities.

Noise levels at Location 8, near Rancho Los Amigos Medical Center, were in the higher range due to both roadway traffic and stationary noise sources at the hospital including ventilation systems. Furman Park (Location 6) has noise levels in the mid-range for areas in Downey and aircraft overflight noise was again recorded. Noise levels were also measured near the Civic Center (Location 1) where predominant noise sources were aircraft overflights and roadway traffic on Downey Avenue as well as in the Center's parking lot.

## Legend

● MONITORING STATION


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
PARAMOUNT
105 FREEWAY (PROPOSED)
605
5
42
19
1
2
3
4
5
6
7
8
9
10

SOURCE: City of Downey

# Noise Monitoring Locations

## Exhibit VI-5

## Noise Chapter

Not to scale.

**DOWNEY GENERAL PLAN**

*Vision* 2010

## III. CURRENT NOISE CONTOURS

- **Roadways**

Downey's roadway noise contours were generated with the Federal Highway Administration's Highway Traffic Noise Prediction Model, U.S. Department of Transportation (1978). This model is the widely accepted method for estimating traffic noise impacts and was modified to generate CNEL values. Model input data were supplied by Downey's Traffic Engineer and include existing and projected average daily traffic levels; day/evening/night percentages of autos, medium and heavy trucks; vehicle speeds; ground attenuation factors and roadway widths. Downey's average daily traffic assumptions and distances to the roadway 60, 65 and 70 dB CNEL contours are provided in Table 6.3.

## TABLE 6.3

## AVERAGE DAILY TRAFFIC AND dB CNEL CONTOURS BY ROADWAY

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline 60 dB | 65 dB | 70 dB |
|---|---|---|---|---|
| San Gabriel River Freeway[a] | | 2,315(W) | 1,076(W) | 504(W) |
| S. City Limit-Firestone | 213,000 | 875(W) | 375(W) | 288(W) |
| Firestone-Santa Ana Freeway | 213,000 | 2,315(E) | 1,076(E) | 504(E) |
| Santa Ana Freeway-Telegraph | 215,000 | 911(W) | 439(W) | 173(W) |
| Santa Ana Freeway | | 935(W) | 448(W) | 392(E) |
| W. City Limit-Paramount | 238,000 | 706(E) | 336(E) | 246(W) |
| Paramount-Lakewood | 236,000 | 1,035(W) | 469(W) | 436(W) |
| Lakewood-San Gabriel Freeway | 226,000 | 690(E) | 309(E) | 232(E) |
| San Gabriel Freeway- | | 906(W) | 412(W) | 371(W) |
| E. City Limits | 213,000 | 700(E) | 300(E) | 220(E) |
| | | 2,152(W) | 1,000(W) | 466(W) |
| Alameda Street (secondary)[b] | | | | |
| Paramount-Brookshire | 5,000 | 97 | 50 | <50 |
| Brookshire-Lakewood | 4,000 | 78 | 50 | <50 |
| Bellflower Boulevard (secondary) | | | | |
| Foster-Imperial | 13,245 | 348 | 112 | <50 |
| Imperial-Lakewood | 16,012 | 424 | 136 | <50 |
| Brookshire Avenue (secondary) | | | | |
| Gardendale-Imperial | 5,481 | 110 | <50 | <50 |
| Imperial-Stewart & Gray | 9,536 | 254 | 84 | <50 |
| Stewart & Gray-Firestone | 12,475 | 242 | 80 | <50 |
| Firestone-Florence | 11,429 | 156 | <50 | <50 |
| Florence-Gallatin | 7,169 | 97 | <50 | <50 |
| Clark Avenue (secondary) | | | | |
| Foster-Lakewood | 10,400 | 275 | 89 | <50 |

[a] The distances are from roadway centerline and assume additional noise reduction for sound walls along the San Gabriel and Santa Ana Freeways. Since the height of freeway sound walls depends on the side of the freeway, "W" refers to the west side and "E" refers to the east side.

[b] "Secondary" roadways have up to an 80-foot wide right-of-way.

## TABLE 6.3 (continued)

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline 60 dB | 65 dB | 70 dB |
|---|---|---|---|---|
| Downey Avenue (secondary) | | | | |
| S. City Limit-W. City Limit | 12,094 | 234 | 77 | <50 |
| Gardendale-Imperial | 12,658 | 335 | 108 | <50 |
| Imperial-Stewart & Gray | 14,392 | 379 | 123 | <50 |
| Stewart & Gray-Firestone | 15,205 | 403 | 131 | <50 |
| Firestone-Florence | 11,686 | 226 | 89 | <50 |
| Florence-Gallatin | 4,553 | 90 | <50 | <50 |
| Firestone Boulevard (major) [c] | | | | |
| W. City Limit-Old River School | 44,000 | 1,961 | 622 | 201 |
| Old River School-Paramount | 44,000 | 1,973 | 626 | 202 |
| Paramount-Lakewood | 39,000 | 1,407 | 447 | 147 |
| Lakewood-Woodruff | 37,000 | 1,652 | 525 | 174 |
| Woodruff-E. City Limit | 53,500 | 2,394 | 758 | 242 |
| Florence Avenue (major) | | | | |
| W. City Limit-Paramount | 32,060 | 656 | 211 | 76 |
| Paramount-Lakewood | 38,600 | 788 | 251 | 87 |
| Lakewood-San Gabriel Freeway | 49,117 | 1,002 | 321 | 112 |
| Foster Road (secondary) | | | | |
| Lakewood-Bellflower | 13,911 | 329 | 107 | <50 |
| Bellflower-E. City Limit | 11,651 | 276 | 89 | <50 |
| Gallatin Road (secondary) | | | | |
| Tweedy-Paramount | 7,969 | 117 | <50 | <50 |
| Paramount-Lakewood | 9,100 | 132 | <50 | <50 |
| Lakewood-Foster Bridge Road | 10,747 | 179 | 129 | <50 |
| Gardendale Street (secondary) | | | | |
| W. City Limit-Paramount | 10,134 | 239 | 78 | <50 |
| Paramount-Lakewood | 16,487 | 390 | 126 | <50 |
| Garfield Avenue (major) | | | | |
| W. City Limit-Gardendale | 25,171 | 808 | 256 | 83 |

[c] "Major" roadways have up to a 110-foot wide right-of-way.

## TABLE 6.3 (continued)

| | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline | | |
|---|---|---|---|---|
| Roadway | | 60 dB | 65 dB | 70 dB |
| Imperial Highway (major) | | | | |
| W. City Limit-Paramount | 39,303 | 1,265 | 402 | 133 |
| Paramount-Brookshire | 37,500 | 1,200 | 382 | 127 |
| Brookshire-Lakewood | 38,250 | 1,222 | 389 | 129 |
| Lakewood-Bellflower | 39,500 | 1,262 | 401 | 132 |
| Bellflower-E. City Limit | 39,667 | 1,268 | 403 | 133 |
| Lakewood Boulevard (major) | | | | |
| S. City Limit-Imperial | 25,000 | 661 | 212 | 75 |
| Imperial-Stewart & Gray | 30,000 | 796 | 256 | 92 |
| Stewart & Gray-Firestone | 37,200 | 983 | 313 | 105 |
| Firestone-Cherokee | 32,500 | 859 | 273 | 91 |
| Cherokee-Florence | 32,000 | 841 | 262 | 88 |
| Florence-Gallatin | 31,700 | 837 | 266 | 87 |
| Gallatin-Santa Ana Freeway | 35,500 | 938 | 298 | 96 |
| Santa Ana Freeway-Telegraph | 32,000 | 841 | 268 | 88 |
| Old River School Road (secondary) | | | | |
| Imperial-Stewart & Gray | 12,309 | 317 | 102 | <50 |
| Stewart & Gray-Firestone | 16,202 | 427 | 137 | <50 |
| Firestone-Florence | 14,856 | 392 | 126 | <50 |
| Paramount Boulevard (major) | | | | |
| Gardendale-Imperial | 26,000 | 687 | 218 | 73 |
| Imperial-Stewart & Gray | 34,000 | 898 | 285 | 93 |
| Stewart & Gray-Firestone | 31,000 | 819 | 260 | 85 |
| Firestone-Florence | 38,000 | 1,004 | 318 | 103 |
| Florence-Suva | 33,661 | 649 | 207 | 70 |
| at Suva | 33,661 | 648 | 207 | 66 |
| Gallatin-Telegraph | 34,164 | 659 | 211 | 76 |
| Rives Avenue (collector) [d] | | | | |
| Imperial-Firestone | 6,560 | 126 | <50 | <50 |
| Firestone-Florence | 5,736 | 151 | <50 | <50 |
| Rosecrans Avenue (major) | | | | |
| S. City Limit-Lakewood | 40,000 | 1,694 | 539 | 180 |

[d] "Collector" roadways have up to a 60-foot wide right-of-way.

## TABLE 6.3 (continued)

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline | | |
|---|---|---|---|---|
| | | 60 dB | 65 dB | 70 dB |
| Stewart & Gray Road (secondary) | | | | |
| W. City Limit-Paramount | 17,000 | 330 | 106 | <50 |
| Paramount-Lakewood | 22,386 | 433 | 138 | <50 |
| Lakewood-Woodruff | 12,400 | 331 | 106 | <50 |
| Woodruff-Firestone | 11,302 | 302 | 98 | <50 |
| Studebaker Road (major) | | | | |
| S. City Limit-Florence | 18,400 | 487 | 158 | <50 |
| Suva Street (collector) | | | | |
| Guatemala-Tweedy | 7,400 | 106 | 50 | <50 |
| Telegraph Road (major) | | | | |
| W. City Limit-Paramount | 19,400 | 882 | 281 | 95 |
| Paramount-Lakewood | 25,400 | 1,154 | 367 | 121 |
| Lakewood-E. City Limit | 27,000 | 1,227 | 390 | 128 |
| Tweedy Lane (collector) | | | | |
| Florence-Suva | 6,300 | 122 | 50 | <50 |
| Woodruff Avenue (major) | | | | |
| Foster-Imperial | 18,928 | 500 | 160 | <50 |
| Imperial-Stewart & Gray | 18,167 | 481 | 154 | <50 |
| Stewart & Gray-Firestone | 18,019 | 474 | 152 | <50 |
| Firestone-Cecilia | 14,400 | 278 | 90 | <50 |
| Cecilia-Florence | 6,700 | 129 | 50 | <50 |

60, 65, 70 dB CNEL contours are provided for the San Gabriel River and Santa Ana Freeways, major and secondary roadways. The roadway arterial noise contours represent standard "hard" site conditions (locations where there is an unobstructed view of the highway) as defined by the Federal Highway Administration (FHWA). FHWA defines "soft" site conditions as locations where the view of the roadway is interrupted by isolated buildings, clumps of bushes, scattered trees or where the intervening ground is soft or covered with vegetation.

Although it is virtually impossible to analyze each roadway segment of Downey for noise barrier attenuation, the existing freeway sound walls along the San Gabriel River and Santa Ana Freeways were considered. The sound walls reduced noise levels by 5.5 to 10 dB, depending on the height and distance to the receptor. On non-freeway roadway segments in Downey where substantial walls, berms or structures block the noise path, the contours over-estimate the noise impact.

- **Rail Activity**

60, 65 and 70 dB CNEL contours were calculated for both the Southern Pacific and Union Pacific rail lines to provide an example of the noise impacts on the City of Downey from the rail lines. Because there is such a wide range in the number of trains that can utilize these rail lines, each of the contours assume four trains per day.

## TABLE 6.4

## NOISE CONTOURS FOR RAIL LINES

| Rail Line | Number of Trains per Day | Distance to dB CNEL Contour from Roadway Centerline: 60 dB | 65dB | 70 dB |
|---|---|---|---|---|
| Southern Pacific [a] Transportation Co. | 4 | 1,700 | 820 | 390 |
| Union Pacific Railroad [b] | 4 | 1,000 | 510 | 230 |

[a] Assumed four diesel trains per day with 50 percent occurring between 10:00 p.m. and 7:00 a.m., at an average of 100 cars and four diesel locomotives per train, at an average train speed of 20 miles per hour.

[b] Assumed four diesel trains per day with 50 percent occurring between 10:00 p.m. and 7:00 a.m., at an average of 25 cars and two diesel locomotives per train, at an average train speed of 20 miles per hour.

## IV. PROJECTED NOISE CONTOURS

Projected traffic volumes for the Century Freeway and major roadways for the year 2000 are shown on Table 6.5. No projections were available regarding future rail movement or helipad operations to predict future noise levels.

## TABLE 6.5

## YEAR 2000 AVERAGE DAILY TRAFFIC AND dB CNEL CONTOURS BY ROADWAY

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline | | |
|---|---|---|---|---|
| | | 60 dB | 65 dB | 70 dB |
| Century Freeway | | | | |
| W. City Limit-Lakewood | 162,600 | 270 | 165 | 130 |
| Lakewood-Woodruff | 144,100 | 250 | 160 | 130 |
| Woodruff-E. City Limit | 158,000 | 750 | 350 | 300 |
| San Gabriel River Freeway | | | | |
| S. City Limit-Firestone | 234,300 | 2,547(W) | 1,184(W) | 554(W) |
| Firestone-Santa Ana Freeway | 234,300 | 963(W) | 413(W) | 317(W) |
| Santa Ana Freeway-Telegraph | 236,500 | 2,547(E) | 1,184(E) | 554(E) |
| | | 1,002(W) | 483(W) | 190(W) |
| Santa Ana Freeway | | 1,029(W) | 493(W) | 431(E) |
| W. City Limit-Paramount | 261,800 | 777(E) | 370(E) | 271(W) |
| Paramount-Lakewood | 259,600 | 1,139(W) | 516(W) | 480(E) |
| | | 759(E) | 340(E) | 255(W) |
| Lakewood-San Gabriel Freeway | 248,600 | 997(W) | 453(W) | 408(W) |
| | | 770(E) | 330(E) | 242(W) |
| San Gabriel Freeway-E. City Limits | 234,300 | 2,367(W) | 1,100(W) | 513(W) |
| | | 2,152(W) | 1,000(W) | 466(W) |
| Alameda Street | | | | |
| Paramount-Brookshire | 5,500 | 107 | <50 | <50 |
| Brookshire-Lakewood | 4,400 | 86 | <50 | <50 |
| Bellflower Boulevard | | | | |
| Foster-Imperial | 14,570 | 383 | 123 | <50 |
| Imperial-Lakewood | 17,613 | 466 | 150 | <50 |
| Brookshire Avenue | | | | |
| Gardendale-Imperial | 6,029 | 121 | <50 | <50 |
| Imperial-Stewart & Gray | 10,490 | 279 | 92 | <50 |
| Stewart & Gray-Firestone | 13,723 | 266 | 88 | <50 |
| Firestone-Florence | 12,572 | 172 | 55 | <50 |
| Florence-Gallatin | 7,886 | 107 | <50 | <50 |
| Clark Avenue | | | | |
| Foster-Lakewood | 11,440 | 303 | 98 | <50 |

## TABLE 6.5 (continued)

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline | | |
|---|---|---|---|---|
| | | 60 dB | 65 dB | 70 dB |
| **Downey Avenue** | | | | |
| S. City Limit-W. City Limit | 13,303 | 257 | 85 | <50 |
| Gardendale-Imperial | 13,924 | 369 | 119 | <50 |
| Imperial-Stewart & Gray | 15,831 | 417 | 135 | <50 |
| Stewart & Gray-Firestone | 16,726 | 443 | 144 | <50 |
| Firestone-Florence | 12,855 | 249 | 98 | <50 |
| Florence-Gallatin | 5,008 | 99 | <50 | <50 |
| **Firestone Boulevard** | | | | |
| W. City Limit-Old River School | 48,400 | 2,157 | 684 | 221 |
| Old River School-Paramount | 48,400 | 2,170 | 689 | 222 |
| Paramount-Lakewood | 42,900 | 1,548 | 492 | 162 |
| Lakewood-Woodruff | 40,700 | 1,817 | 578 | 191 |
| Woodruff-E. City Limit | 58,850 | 2,633 | 834 | 266 |
| **Florence Avenue** | | | | |
| W. City Limit-Paramount | 35,266 | 722 | 232 | 84 |
| Paramount-Lakewood | 42,460 | 867 | 276 | 95 |
| Lakewood-San Gabriel Freeway | 54,029 | 1,102 | 353 | 123 |
| **Foster Road** | | | | |
| Lakewood-Bellflower | 15,302 | 362 | 118 | <50 |
| Bellflower-E. City Limit | 12,816 | 304 | 98 | <50 |
| **Gallatin Road** | | | | |
| Tweedy-Paramount | 8,766 | 129 | <50 | <50 |
| Paramount-Lakewood | 10,010 | 145 | <50 | <50 |
| Lakewood-Foster Bridge Road | 11,822 | 197 | 142 | <50 |
| **Gardendale Street** | | | | |
| W. City Limit-Paramount | 11,147 | 263 | 86 | <50 |
| Paramount-Lakewood | 18,136 | 429 | 139 | <50 |
| **Garfield Avenue** | | | | |
| W. City Limit-Gardendale | 27,688 | 888 | 282 | 91 |
| **Imperial Highway** | | | | |
| W. City Limit-Paramount | 42,233 | 1,392 | 442 | 146 |
| Paramount-Brookshire | 41,250 | 1,320 | 420 | 140 |
| Brookshire-Lakewood | 42,075 | 1,344 | 428 | 142 |
| Lakewood-Bellflower | 43,450 | 1,388 | 441 | 145 |
| Bellflower-E. City Limit | 43,634 | 1,395 | 443 | 146 |

## TABLE 6.5 (continued)

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline 60 dB | 65 dB | 70 dB |
|---|---|---|---|---|
| Lakewood Boulevard | | | | |
| S. City Limit-Imperial | 27,500 | 727 | 233 | 83 |
| Imperial-Stewart & Gray | 33,000 | 876 | 282 | 101 |
| Stewart & Gray-Firestone | 40,920 | 1,081 | 344 | 116 |
| Firestone-Cherokee | 35,750 | 945 | 300 | 100 |
| Cherokee-Florence | 35,200 | 925 | 288 | 97 |
| Florence-Gallatin | 34,870 | 921 | 293 | 96 |
| Gallatin-Santa Ana Freeway | 39,050 | 1,032 | 328 | 106 |
| Santa Ana Freeway-Telegraph | 35,200 | 925 | 295 | 97 |
| Old River School Road | | | | |
| Imperial-Stewart & Gray | 13,243 | 349 | 112 | <50 |
| Stewart & Gray-Firestone | 17,822 | 470 | 151 | <50 |
| Firestone-Florence | 16,342 | 431 | 139 | <50 |
| Paramount Boulevard | | | | |
| Gardendale-Imperial | 28,600 | 756 | 240 | 80 |
| Imperial-Stewart & Gray | 37,400 | 988 | 314 | 102 |
| Stewart & Gray-Firestone | 34,100 | 901 | 286 | 94 |
| Firestone-Florence | 41,800 | 1,104 | 350 | 113 |
| Florence-Suva | 37,027 | 714 | 228 | 77 |
| at Suva | 37,027 | 713 | 228 | 73 |
| Gallatin-Telegraph | 37,580 | 725 | 232 | 84 |
| Rives Avenue | | | | |
| Imperial-Firestone | 7,216 | 139 | <50 | <50 |
| Firestone-Florence | 6,310 | 166 | 55 | <50 |
| Rosecrans Avenue | | | | |
| S. City Limit-Lakewood | 44,000 | 1,864 | 593 | 198 |
| Stewart & Gray Road | | | | |
| W. City Limit-Paramount | 18,700 | 363 | 117 | <50 |
| Paramount-Lakewood | 24,625 | 476 | 152 | <50 |
| Lakewood-Woodruff | 13,640 | 364 | 117 | <50 |
| Woodruff-Firestone | 12,432 | 332 | 107 | <50 |
| Studebaker Road | | | | |
| S. City Limit-Florence | 20,240 | 536 | 174 | 55 |
| Suva Street | | | | |
| Guatemala-Tweedy | 8,140 | 117 | <50 | <50 |

## TABLE 6.5 (continued)

| Roadway | Average Daily Traffic | Distance to dB CNEL Contour from Roadway Centerline | | |
|---|---|---|---|---|
| | | 60 dB | 65 dB | 70 dB |
| Telegraph Road | | | | |
| W. City Limit-Paramount | 21,340 | 970 | 309 | 105 |
| Paramount-Lakewood | 27,940 | 1,269 | 404 | 133 |
| Lakewood-E. City Limit | 29,700 | 1,350 | 429 | 141 |
| Tweedy Lane | | | | |
| Florence-Suva | 6,930 | 134 | <50 | <50 |
| Woodruff Avenue | | | | |
| Foster-Imperial | 20,821 | 550 | 176 | 55 |
| Imperial-Stewart & Gray | 19,984 | 529 | 169 | 55 |
| Stewart & Gray-Firestone | 19,821 | 521 | 167 | 55 |
| Firestone-Cecilia | 15,840 | 306 | 99 | <50 |
| Cecilia-Florence | 7,370 | 142 | <50 | <50 |

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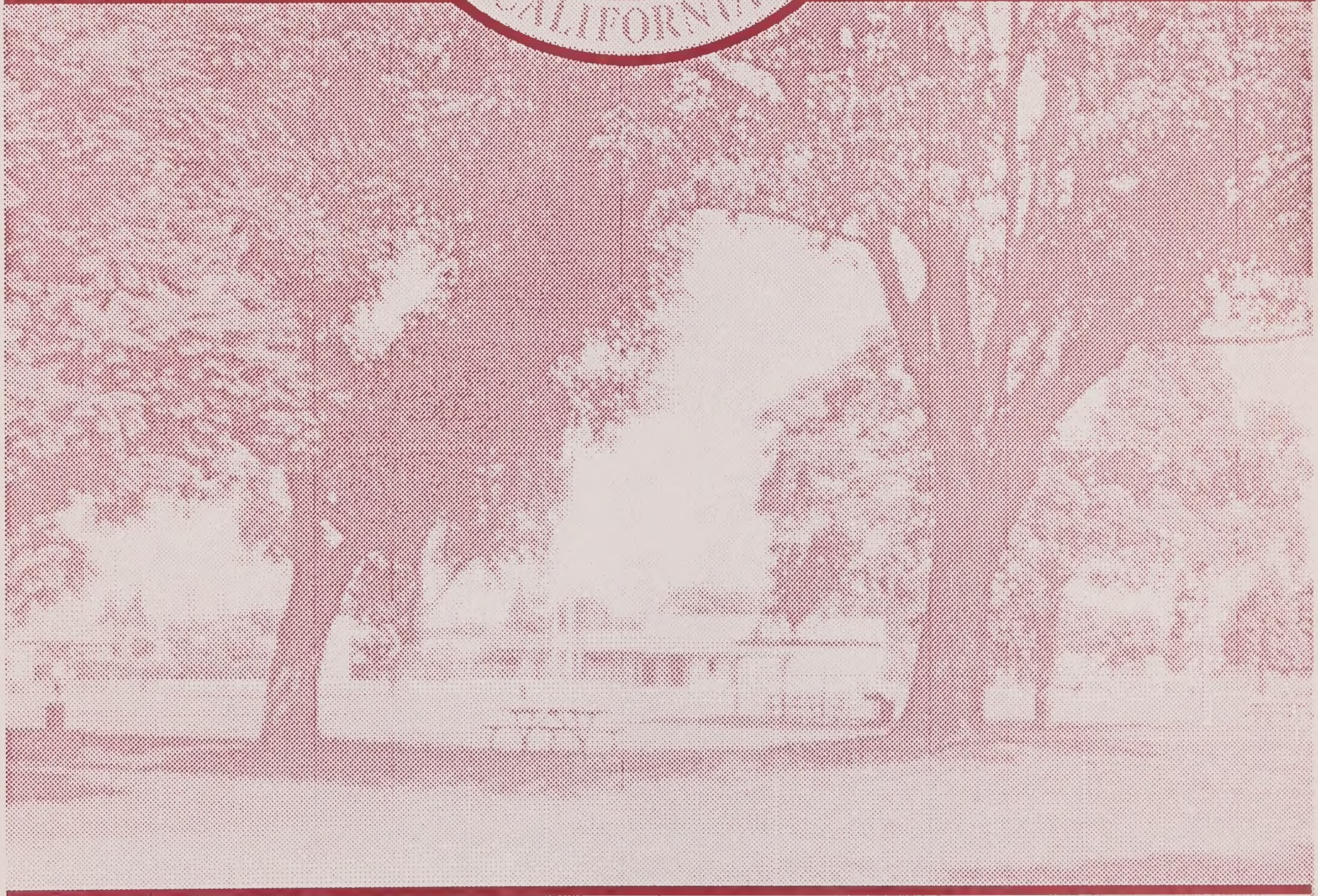
# D·O·W·N·E·Y
# GENERAL PLAN



# OPEN SPACE-RECREATION CHAPTER

# OPEN SPACE AND RECREATION CHAPTER

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APPENDIX A

## OPEN SPACE & RECREATION

### INTRODUCTION

The state requires every general plan to have an open space element (Section 96302(e). The purpose is to guide and set a policy framework for existing and future open space uses within Downey. In an urban environment, open space contributes to the quality of life by adding aesthetic and visual relief.

Although Downey is a built-out city, it has many open space resources. The river beds, Rio Hondo on the west, and Rio San Gabriel on the east, form natural boundaries and provide "edges" of open space as entries to the city. The Central Basin groundwater spreading ground, part of the Rio San Gabriel River in Downey, attracts migratory birds. The two golf courses, on the western boundary, provide acres of greenery and homes to small animals and birds. There are over 47 acres of utility easements in the city that are used for plant nurseries and informally used for recreation. The schools and parks provide recreational facilities and activity areas for Downey residents.

## OPEN SPACE & RECREATION ISSUES

### OPEN SPACE
#### Issue One

Downey has many acres of open spaces, such as utility easements, cemetery, river beds, golf courses, parks and schools.

### RECREATION
#### Issue Two

Certain areas of Downey are deficient in parks; there is a need for additional parks and recreational facilities in Downey especially in the south.

#### Issue Three

Downey's parks are 30-40 years old; maintenance and upgrading of existing parks and facilities is necessary.

#### Issue Four

There are many school facilities, owned by the Downey Unified School District, that could be used for recreational purposes.

#### Issue Five

The downtown area is one of the only areas in Downey with sufficient vacant land for parks, recreational facilities, and expanded cultural uses.

### HISTORICAL RESOURCES
#### Issue Six

Downey's history goes back to the Civil War; there are historical resources in Downey that contribute to the quality of life and to the heritage of the community.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address open space and recreation and historic resource issues in the City of Downey.

### GOALS

Develop plans for the preservation, conservation, and rational use of open space.

Create and maintain a public system of park and recreational facilities.

Preserve those significant historical resources considered valuable to the community.

## OPEN SPACE

- **Issue One**

Downey has many acres of open space, such as utility easements, cemetery, river beds, golf courses, parks and schools.

### Policies

7.1.1 The City shall adopt programs to preserve existing open space.

### Programs

The City shall:

7.1.1.1 Adopt an open space ordinance that designates parks, public schools, utility easements, cemeteries, river beds, and golf courses as open space.

- **Issue Two**

Certain areas of the city are deficient in parks; there is a need for additional parks and recreational facilities in Downey especially in the south.

**Policies**

7.2.1 The City shall develop new parks in the areas of greatest need.

7.2.2 The City shall develop a connector bike trail.

7.2.3 The City shall provide additional recreational facilities.

7.2.4 The City shall examine the use of existing utility rights of way for recreation facilities.

7.2.5 The City shall provide handicap accessible facilities.

7.2.6 The City shall require large commercial, industrial and residential developments to establish usable open space in their projects.

**Programs**

The City shall:

7.2.1.1 Adopt a Parks Master Plan identifying areas of the city in greatest need of additional parks.

7.2.2.1 Request the Southern Pacific Railroad to grant an easement over part of their right-of-way for a bike trail, linking the existing bike trails along the river beds.

7.2.3.1 Assess the need for, and if a need is found, provide a Full-Service Senior Center.

7.2.3.2 Assess the need for, and if a need is found, provide a gymnasium/multi-purpose center.

7.2.3.3 Designate the Rockwell Employees Park as future public park & open space on the General Plan Land Use map.

7.2.3.4 Designate part of the Rockwell site as a Future Planning Area with a portion designated as a future public park & open space on the General Plan Land Use Map.

7.2.4.1 Assess the possibility of using the railroad, Edison Company, public controlled rights of way and surplus I-105 lots for recreation.

7.2.5.1 Provide handicap accessible facilities at all parks and recreational facilities.

7.2.6.1 Require large commercial, industrial and residential developments to establish 5% of the project as usable open space, not to include setbacks and parking areas.

- **Issue Three**

Downey's parks are 30-40 years old; maintenance and upgrading of existing parks and facilities is necessary.

**Policies**

7.3.1 The City shall upgrade existing recreation facilities and parks.

7.3.2 The City shall adopt programs that will maintain a minimum of 106 acres of parkland.

**Programs**

The City shall:

7.3.1.1 Upgrade Rio Hondo golf course and Country Club facility.

7.3.1.2 Adopt a Master Plan and Capitol Improvement Program for replacement of playground equipment and the remodeling and maintenance of park structures.

7.3.1.3 Modify current and future facilities for the use of reclaimed water.

7.3.1.4 Renovate Rio San Gabriel Park as needed and monitor the conditions of the abandoned landfill.

7.3.1.5 Develop the south end of Wilderness Park.

7.3.1.6 Maintain an adequate level of recreational staffing at park facilities.

7.3.1.7 Examine and use all possible means of funding, including grants, donations, development fees, user fees and public/private partnerships.

7.3.2.1 Adopt an ordinance retaining 106 acres in Downey as parks.

- **Issue Four**

There are many school facilities, owned by the Downey Unified School District, that could be used for recreational purposes.

**Policies**

7.4.1 The City shall cooperate with the school district to provide joint use of school facilities for recreation programs.

7.4.2 The City shall consider development of parks and/or special facilities on school property.

7.4.3 The City shall consider purchasing part of each public school property as open space, pursuant to the Naylor Act, should any existing schools be sold or leased for another use.

**Programs**

The City shall:

7.4.1.1 Continue coordination with the Downey Unified School District to ensure the availability of school recreational facilities for public recreation.

7.4.3.1 Consider its right to purchase up to 30% of a school site, pursuant to the Naylor Act, should such site become available for sale or lease.

- **Issue Five**

The downtown area is one of the only areas in Downey with sufficient land for parks, recreational facilities, and expanded cultural uses.

**Policies**

7.5.1 The City shall continue to support cultural events and facilities in Downey.

**Programs**

The City shall:

7.5.1.1 Develop a park in the historic downtown area.

7.5.1.2 Study the relocation of the Downey Art Museum to the historic downtown area.

7.5.1.3 Remodel the Downey Community Theater facility.

7.5.1.4 Construct an historical interpretive area in the downtown area.

## HISTORICAL RESOURCES

- **Issue Six**

Downey's history goes back to the Civil War; there are historical resources in Downey that contribute to the quality of life and to the heritage of the community.

Policies

7.6.1 The City shall work with property owners to preserve significant historical resources.

7.6.2 The City shall develop a process for identifying significant historical/ archeological resources.

Programs

The City shall:

7.6.1.1 Provide incentives to property owners to preserve significant historical resources such as but not limited to:

- The Rives Mansion
- The Assistance League House
- The McDonald's at Lakewood and Florence
- The Dismuke's House at Apollo Park
- The Harriman House at Rancho Business Park
- The Moreton Bay Fig tree at Rancho Business Park

7.6.1.2 Conduct an historical resource survey to identify additional significant historical resources.

7.6.2.1 Preserve and/or relocate significant archeological resources.

## I. OPEN SPACE

- **Undeveloped Open Space**

The state defines open space[1] as any of the following:

(1) Open space for the preservation of natural resources; in Downey this is the river beds of the Rio Hondo and Rio San Gabriel Rivers;
(2) Open space used for the managed production of resources including areas required for recharge of ground water basins, such as the ground water spreading ground in Downey;
(3) Open space for outdoor recreation including historic, areas for parks, areas which serve as links for recreation, including utility easements, banks of rivers and trails;
(4) Open space for public health and safety, including areas which require special management, such as Rio San Gabriel park which is located on an abandoned landfill.

In addition to the above, the General Plan Committee chose to include Downey Cemetery, and the golf courses as open space. There are over 200 acres of undeveloped open space in Downey, and an additional 230 acres of golf courses. If Downey were to lose that, it would have a detrimental impact on the community.

Preservation of utility easements as open space is necessary not only for the public welfare and safety, but also for visual relief. Existing easements include Southern California Edison and the Department of Water and Power. They are now used informally as recreation areas. Southern Pacific and Union Pacific Railroads are also corridors of visual open space.

Downey Cemetery, located at the northeast corner of Lakewood Boulevard and Gardendale Avenue, provides 7 acres of grass, flowers and trees in the midst of the urban environment.

River beds are another source of undeveloped open space in Downey. There are river beds on both the east and west boundaries of the city; Rio San Gabriel on the east and Rio Hondo on the west. They create "edges" of open space on the east and west boundaries of the city, and contribute to the unique character of Downey.

---

[1] "General Plan Guidelines, Office of Planning and Research, 1990, page 126.

Downey has two public golf courses, both over 100 acres, on the west city boundary. Rio Hondo Country Club, which is city-owned, is located on Old River School Road, between Florence and Firestone. Los Amigos Golf Club, owned by Los Angeles County, is also on Old River School Road, between Firestone Boulevard and Imperial Highway.

The 120-acre Rancho Los Amigos Hospital site, south of Imperial Highway, is being developed, in phases, into an industrial park, Rancho Business Center. The specific plan for phase 2 required that a 1-acre parcel in phase 3 be set aside for a mini-park and historic interpretive center. The park will be located at the center of the site, and where several significant trees are located, including a Moreton Bay fig tree, one of the largest in Los Angeles County. Setting aside open space in a large development, either residential, commercial or industrial, would create pockets of additional open space throughout the city. Setbacks or parking lots would not be figured in the requirement for open space.

The inventory of existing open space, not developed for parks, is listed in Table 7.1.

## TABLE 7.1

## INVENTORY OF OPEN SPACE

| Open Space | Acres | Percent of Total |
|---|---|---|
| Utilities | 47.0 | 9.8 |
| Cemetery | 7.0 | 1.5 |
| Railroads | 62.7 | 13.7 |
| River Beds | 110.0 | 24.0 |
| Golf Courses | | |
| Rio Hondo | 101.0 | 22.0 |
| Los Amigos | 135.0 | 29.0 |
| Total | 462.7 | 100.0 |

# LEGEND

○ Schools

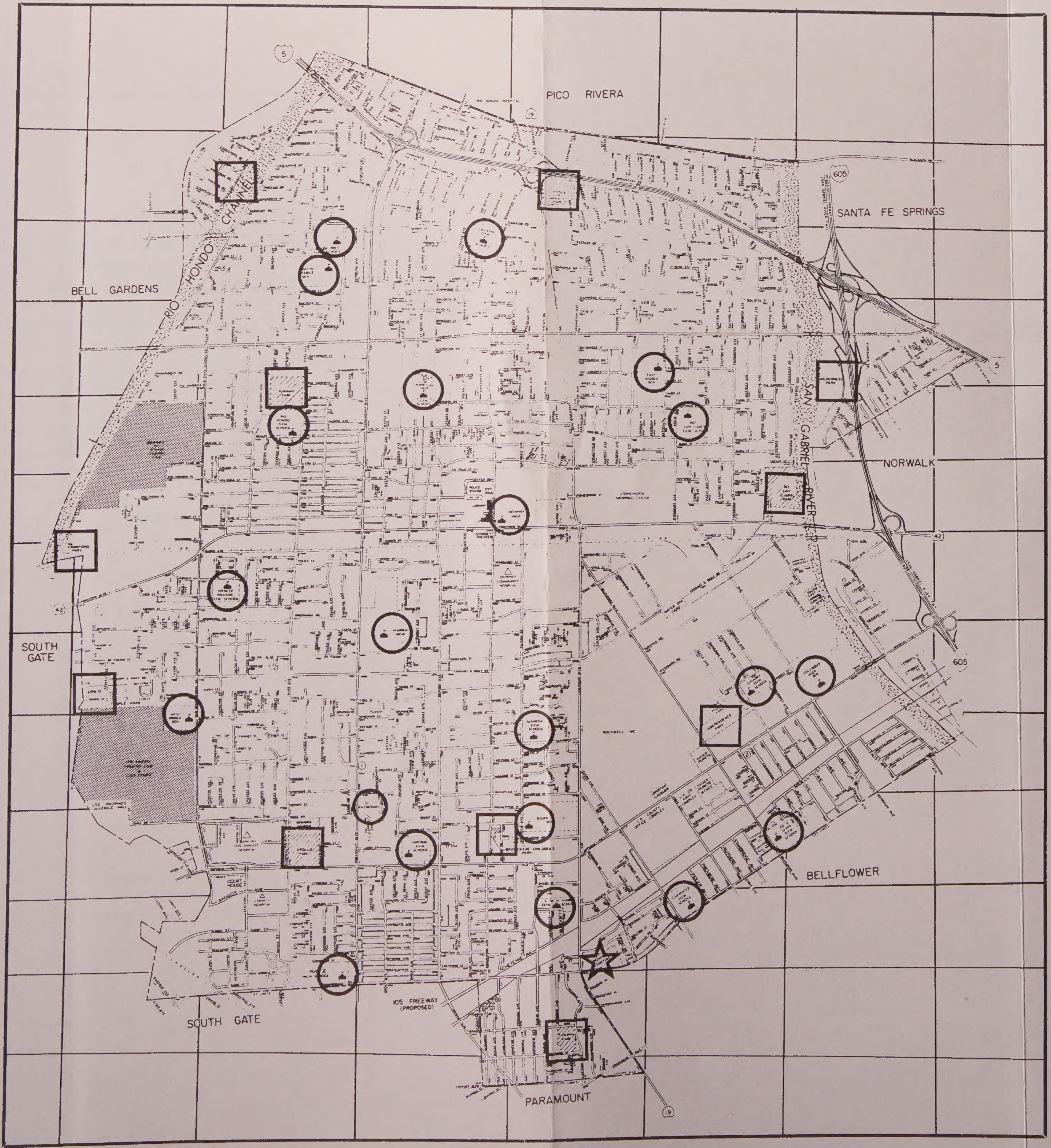
□ Parks

▨ Golf Courses

░ River Beds/ Flood Channels

☆ Downey Cemetery

SOURCE: City of Downey



PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
SOUTH GATE
BELLFLOWER
PARAMOUNT
105 FREEWAY (PROPOSED)
5
5
19
19
605
605
42
42

# EXISTING OPEN SPACE LOCATIONS

## EXHIBIT VII-1

## OPEN SPACE CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

## II. RECREATION

- **Parks and Recreational Facilities**

Certain areas of Downey are deficient in parks; there is a need for additional parks and recreational facilities in Downey especially in the south. Downey has eleven parks, ranging in size from Temple Park, which is a 1/2 acre mini-park, to Wilderness park, which is 26 acres. The city's goal is to provide 1.5 acres of park land for every 1,000 residents. On January 1, 1991 Downey's population was 91,444, which means approximately 137 acres of park land is needed to meet Downey's goal. Downey currently has 106 acres of parks; 30.5 acres more are needed to obtain the goal of 1.5 acres of parks land per 1,000 residents. To meet the goal, the City proposes to designate the Rockwell Employees Park and part of the Rockwell site as a future public park and open space on the General Plan map and to require large developments to provide useable open space in their projects. A park is being considered for the downtown area. Located within the Civic Center Complex, there exists a small public park/forum. The City placed an historical arch in this area, as a memorial to remind us of Downey's first grammar school and city hall.

### TABLE 7-2
### CLASSIFICATION OF EXISTING FACILITIES

| Category | Facility | Acreage |
|---|---|---|
| Mini-Parks<br>1 acre or less | Temple Park | 0.5 |
| | Subtotal | **0.5** |
| Neighborhood Parks<br>1-6 acres | Brookshire Park | 1.6 |
| | Crawford Park | 2.2 |
| | Dennis the Menace Park | 6.9 |
| | Treasure Island Park | 4.0 |
| | Subtotal | **14.7** |
| Community Parks<br>7+ acres | Apollo Park | 14.7 |
| | Furman Park | 14.8 |
| | Golden Park | 7.4 |
| | Independence Park | 12.5 |
| | Rio San Gabriel Park | 16.0 |
| | Wilderness Park | 26.0 |
| | Subtotal | **91.4** |
| | **Total Park Area** | **106.5** |

The following table shows available parks by Council district. Downey's park needs are shown to be greatest south of Firestone Boulevard.

---

### DISTRICT 1, S. of Firestone, E. of Downey Avenue

| | |
|---|---|
| Brookshire Park | 1.6 acres |
| Golden Park | 7.4 acres |
| Independence Park | 12.5 acres |

Total Park Acreage 21.5

### DISTRICT 2, S. of Firestone, W. of Downey Avenue

| | |
|---|---|
| Apollo Park | 14.7 acres |
| Temple Park | .5 acres |

Total Park Acreage 15.2
Total South 36.7

### DISTRICT 3, N. of Firestone, W. of Downey Avenue

| | |
|---|---|
| Crawford Park | 2.2 acres |
| Furman Park | 14.8 acres |
| Treasure Island Park | 4.0 acres |

Total Park Acreage 21.0

### DISTRICT 4, N. of Firestone, E. of Downey Avenue

| | |
|---|---|
| Dennis the Menace Park | 6.9 acres |
| Rio San Gabriel Park | 16.0 acres |
| Wilderness Park | 26.0 acres |

Total Park Acreage 48.8
North Total 69.8
Total Citywide 106.5

Although existing parks provide a variety of recreational facilities, a need for more facilities may be identified. As the city's residents age, a full-service senior center may be necessary. The 1990 census shows an increase in school-age children in Downey; a need for a city-wide gymnasium/multi-purpose center might also be identified.

Rockwell International

There is little available land for additional parks. Existing utility rights-of-way should be examined for possible recreation use. Rockwell International is a major land use in the southeast section of Downey. In the event that Rockwell leaves, part of the Rockwell site could be developed for parks and recreational facilities. The Rockwell Employees Park, a 9 acre site off Woodruff Avenue, is developed with tennis courts and a baseball diamond. It could also be turned over to the city should Rockwell leave the area.

Bike Trails

There are county bike trails on both river beds along the east and west boundaries of the city. However, a need has been identified for a bike trail linking the existing trails. The Southern Pacific Railroad right-of-way, that parallels Firestone Boulevard running east and west, could be developed for a connector bike trail. This proposed bike trail would also provide access to the revitalized downtown area.

- **Park Maintenance**

Downey's parks are 30-40 years old; maintenance and upgrading of existing parks and facilities is necessary. Playground equipment at all parks needs to be upgraded. Handicap access in restrooms must be provided. Activity buildings at Apollo, Furman, and Rio San Gabriel Parks need renovation. Tennis court lights at Independence and Furman need replacement as well as ball diamond lights at Apollo and Rio San Gabriel Parks. Ball diamond lights should be installed at Golden Park. A Master Plan and Capital Improvement Program for replacement of equipment and park structures needs to be developed and implemented.

Reclaimed water irrigation systems will soon be installed in Downey's parks. The system will conserve third-stage water for domestic use, and will be a plentiful source of water for landscape irrigation.

Maintenance of recreation programs is also necessary. The City's Community Services Department manages the parks and recreation facilities. They are maintained by the Department of Public Works. Most Downey parks are staffed year round to meet the needs of the numerous community groups, reservations, athletic organizations and individuals using the parks. Park programs include special interest classes, athletic league, concerts in the parks, year round and summer recreation programs, and special events.

A study to consider the renovation of Rio Hondo Country Club is underway. A Master Plan of improvements needs to be adopted and work begun in a timely manner. Greens and fairways will be redone, as will the Country Club building.

Rio San Gabriel Park is constructed on an abandoned landfill. The landfill creates a unique situation for the park. Subsidence from decomposition creates land movement; there is a drainage problem at the south parking lot, and the possibility of escaping gas is always a concern. The park requires regular monitoring.

Wilderness Park, which is 26 acres, is Downey's largest park. It features lakes, activity buildings, picnic facilities and playgrounds. The lake edges are eroding and need to be stabilized. The south end of the park has never been adequately developed with recreational facilities.

Financing park maintenance and renovation

New methods of financing park maintenance and renovation should be explored. The state authorizes cities to charge developers "Park and Recreation Dedication" more commonly known as "Quimby fees". The Quimby Act establishes that a city, by ordinance, can require the dedication of land, or the payment of an in-lieu fee thereof, or a combination of both as a condition of approval for a subdivision map. Downey charges an in-lieu fee which is used for park maintenance. However, since apartment dwellers impact city parks and recreation facilities, Downey should explore "development fees", a fee for parks charged to apartment developers. The City should also examine other means of financing, including grants, donations, public/private partnerships and user fees, such as parking fees on weekends and raising green fees at Rio Hondo Golf Course.

- **School Facilities**

There are many schools, owned by the Downey Unified School District, that could be used for recreational purposes. School sites provide outdoor space to Downey residents during after-school hours, weekdays and all day during weekends. The school district and the city have a cooperative agreement to provide school grounds for recreation.

Although the school district has first priority concerning use of school grounds, the City of Downey has access rights to all gymnasiums, athletic fields and swimming pools when not in use by the district. The school district and the city recently constructed a swimming pool on Downey High School grounds. Cooperation between the school district and the city needs to continue to assure that school open space is available to Downey citizens.

Over the past years, the Downey Unified School District has sold off school sites. This was done to raise revenue and to dispose of underutilized schools, due to shrinking enrollment. The following schools have been sold and converted to other uses:

Santa Gertrudes School
Rives Avenue School
Meadow Park School
Old River School
Fairford School
Roger Caseres School
Downey Elementary School

In addition, the district is now proposing sale of the Unsworth School site, north of the I-5 freeway.

The Naylor Act, Education Code Section 39391, 39393, allows a public agency to purchase no more than 30% of the total surplus school acreage. Under the Act, a school district must offer the surplus school acreage to the city in which the land is situated. The offer must be accepted within 60 days. The minimum sales price for surplus school acreage is 25% of its fair market value. This minimum sales price can only be exceeded to allow a school district to recover the cost it had incurred to acquire a site. (See Appendix A for the complete text of The Act).

School sites are a significant amount of open space in Downey, and loss of the open space to other uses would create more density and congestion on remaining open space areas. The city should exercise its right to acquire 30% of a surplus school site, at 25% of market value, when such site becomes available. Table 7-3 illustrates total school acreage, and the approximate amount of lot coverage.

## TABLE 7-3

## DOWNEY PUBLIC SCHOOL LOT COVERAGE

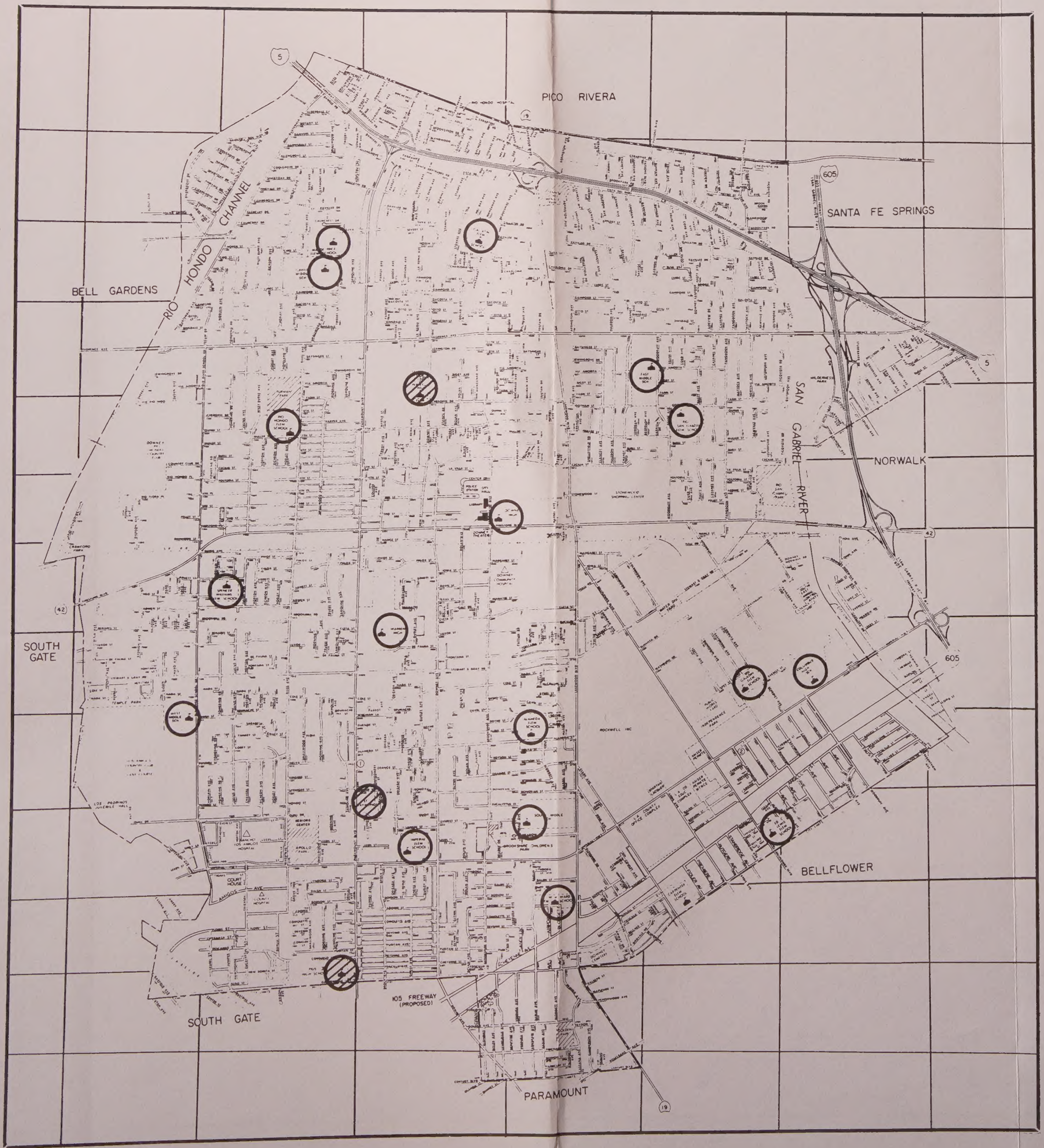
| School | Sq. Ft. | Acres | Sq. Ft. Covered | % Coverage |
|---|---|---|---|---|
| Alameda | 362,250 | 8.3 | 61,875 | 17% |
| Carpenter | 385,070 | 8.8 | 80,625 | 21% |
| Gallatin | 514,444 | 11.8 | 51,875 | 10% |
| Gauldin | 263,032 | 6+ | 53,500 | 20% |
| Imperial | 387,248 | 8.8 | 51,875 | 13% |
| Lewis | 398,040 | 9.1 | 43,400 | 11% |
| Price | 351,360 | 8.1 | 43,500 | 12% |
| Rio Hondo | 448,400 | 10.3 | 45,600 | 10% |
| Rio San Gabriel | 526,320 | 12.1 | 56,200 | 11% |
| Ward | 319,730 | 7.3 | 53,750 | 17% |
| Williams | 239,706 | 5.5 | 49,300 | 20% |
| Middle Schools | | | | |
| East | 989,280 | 22+ | 86,800 | 9% |
| Griffiths | 1,025,014 | 23.5 | 95,000 | 9% |
| South | 894,440 | 20.5 | 138,500 | 15% |
| West | 1,089,000 | 25+ | 100,500 | 10% |

# LEGEND

○ PUBLIC SCHOOL

▨ PRIVATE SCHOOL

SOURCE: City of Downey


5
PICO RIVERA
605
SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
5
SAN GABRIEL RIVER
NORWALK
42
42
SOUTH GATE
605
BELLFLOWER
105 FREEWAY (PROPOSED)
SOUTH GATE
PARAMOUNT
19

# EXISTING PUBLIC AND PRIVATE SCHOOLS

## EXHIBIT VII-2

## OPEN SPACE CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

High Schools

| | | | | |
|---|---|---|---|---|
| Columbus | 1,023,660 | 23.5 | 78,550 | 8% |
| Downey | 1,698,840 | 39+ | 187,200 | 11% |
| Warren | 1,400,306 | 32+ | 179,500 | 13% |
| | | 281.4 acres | | |

Of the 281 acres of public schools, the percent of lot coverage ranges from 8% to 21%. Removing this land from public open space would make an impact on the urban environment.

- **Downtown Downey**

The downtown area is one of the only areas in Downey with sufficient vacant land for parks, recreational facilities and expanded cultural uses. The area considered to be "Downtown Downey" is the historic business district. Its boundaries are Fifth Street on the north, Brookshire Avenue on the east, The Southern Pacific railway on the south and Paramount Boulevard on the west. It is a mix of uses; commercial, service, institutional and residential. Within the historic downtown area, there are currently 11 vacant parcels of land. Since the area is targeted for revitalization, there is an opportunity to include recreational and cultural facilities in the center of the city, accessible to all Downey residents.

To retain the area's heritage, an historical interpretive area should be constructed downtown. The City should consider relocating The Downey Art Museum, currently in Furman Park, to the downtown. This would generate more foot traffic in the area and further define the area as the cultural center of the city. The Downey Community Theater facility should be remodeled to update the building and install handicapped access.

In 1990, a volunteer committee of Downey citizens, The Blue Ribbon Committee, studied the revitalization of Downtown Downey. Their recommendations, included in the "Downtown Downey" report, published in early 1991, include a downtown park, and an historic interpretative area. It also directed that the specific plan, which will be written for the area, include an open space chapter, focusing on pocket parks and encouraging private developments such as restaurants and offices, to provide open space.

## III. HISTORIC RESOURCES

Downey's history goes back to the Civil War[2]; there are historical resources in Downey that contribute to the quality of life and to the heritage of the community. Rancho Santa Gertrudes was founded about 1781. In 1859, the 17,602 acre rancho was bought by John Downey and Dr. James McFarland for $60,000. Downey, a Los Angeles druggist, was Governor of California from 1860 to 1863. In 1865, he began subdividing Santa Gertrudes Rancho, issuing the first land grant to J. H. Burke. The Tract of the Downey Land Association within Santa Gertrudes Rancho was filed with the county surveyor on October 13, 1873. Later former Governor Downey, together with other benefactors, donated 308 acres of land to establish the University of Southern California. He died in Los Angeles in 1894.

Rockwell International, at 12214 Lakewood Boulevard, is an important part of Downey's history. It was begun by E. M. Smith in 1929 as Emsco Aircraft. It subsequently became Vultee, Consolidated Vultee, North American Aviation and finally Rockwell. It is home of the Apollo and Space Shuttle.

Since 1900 the Downey area experienced steady growth. The greatest population increase occurred during the 1950's, when the population swelled to 82,000 persons. In December, 1956, the City of Downey was incorporated as a general law city, and in 1965, it became a charter city.

Several Downey sites are significant historical resources. The Rives Home, at Paramount Boulevard and Third Street, was built in 1911, and was listed on the National Register of Historic Places in 1978. The three-story Greek Revivial home was built for James Rives and family. He was Los Angeles County District Attorney and a Superior Court Judge until his death in 1923.

Casa de Parley Johnson, the Assistant League House, at 7749 Florence Avenue, was built in 1926, and placed on the National Register of Historic Places in 1986. It was built for Parley and Gypsy Johnson by the prominent architect, Roland Coate. Johnson made his fortune in citrus growing and petroleum speculation.

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[2] Historic information provided by the Downey Historical Society.

# LEGEND

① The Rives Mansion

② The Assistance League

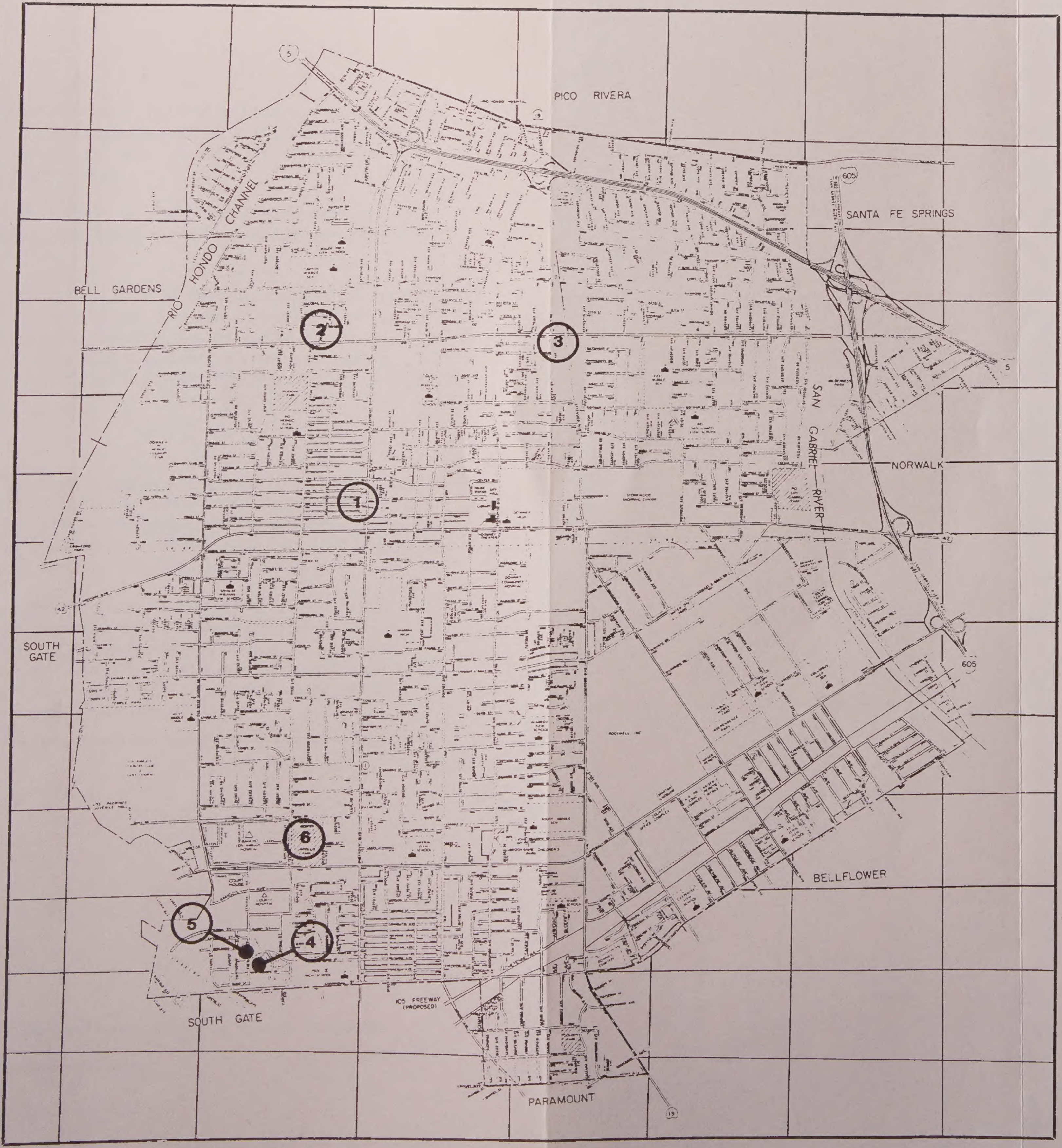
③ The McDonald's at Lakewood & Florence

④ The Harriman House at Rancho

⑤ The Moreton Bay Fig at Rancho

⑥ The Dismuke's House at Apollo Park

SOURCE: City of Downey


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
105 FREEWAY (PROPOSED)
PARAMOUNT
5
605
42
19
1
2
3
4
5
6

# SIGNIFICANT HISTORICAL RESOURCES

## EXHIBIT VII-3

## OPEN SPACE CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

McDonald's Drive-In, 10207 Lakewood, was built in 1953 and became eligible for the National Register in 1984. It is the oldest existing restaurant in the famous hamburger chain with the original architecture and red and white tile. The 800+ sq. ft. neon sign, "Sir Speedee" is a symbol of the nineteen-fifties.

The Dismuke's House, built by an early settler in 1887, was moved from its original location on Firestone Boulevard to Apollo Park. The Downey Historical Society painted and restored the building.

Rancho Los Amigos Medical Center began about 1888 as a Los Angeles County Poor Farm, housing poor and indigent psychiatric inmates. It is now a trauma and burn center. The hospital still houses polio victims from the 1950's polio epidemic. The Harriman Building, completed in 1932, was designed by the county's architect, Mr. Muck. The Moreton Bay fig tree, a significant mature tree on the Rancho property, is one of the largest in Los Angeles County.

Archeological Resources

Archeological resouces range from findings of prehistoric graves to concentrations of debris. In 1986, an archeological site containing an adult American Indian skelton was discovered at 9174 Serapis Avenue. The Indian remains, identified as Case Number 86-5722 Undetermined Doe #7,[3] were sent to the Los Angeles County Coroner's Office and the American Indian Heritage Commission was notified of their discovery.

Concentrations of debris are also sources of artifacts. During recent construction, "trash middens" have been discovered in the downtown area. Medicine and liquor bottles, jars and crocks, tools and trinkets, all relics of Downey's history have been retrieved. The Blue Ribbon Committee recommended that local historians be allowed to retrieve artifacts before the area is further developed or covered over. The relics obtained could be displayed in a downtown historical interpretation display.

a:opensp

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[3] Judith Suchey, archeologist from California State University, Fullerton, identified the remains.

# OPEN SPACE CHAPTER

## APPENDIX A

## ARTICLE 5, EDUCATION CODE

## SURPLUS SCHOOL PLAYGROUND, PLAYING FIELD, AND RECREATIONAL PROPERTY

Whenever any property is sold under this section it shall be removed from the premises of the district selling it within 60 days from the date of the sale.

(Amended by Stats.1990, c. 1372 (S.B.1854), § 192.)

**Historical and Statutory Notes**

**1990 Legislation**

Legislative findings in Stats.1990, c. 1372 (S.B.1854), regarding application of Education Code provisions to community colleges, and authority of community college districts under Const. Art. 9, § 14, see Historical and Statutory Notes under § 40.

### § 39384. Repealed by Stats.1982, c. 689, p. 2824, § 2

**Historical and Statutory Notes**

Prior to repeal, § 39384 was amended by Stats.1980, c. 165, p. 363, § 1; Stats.1980, c. 1354, p. 4858, § 37.2.

Application of Stats.1982, c. 689, see note under § 39295.

## ARTICLE 5. SURPLUS SCHOOL PLAYGROUND, PLAYING FIELD, AND RECREATIONAL PROPERTY

Section
39390. Legislative intent.
39391. Application of article.
39392. School site; governing board.
39393. Authorization to sell or lease school sites.
39394. Offers to sell or lease school sites to public agencies; priorities; discretion; notice of intent to purchase or lease.
39395. Retention of part of school site.
39396. Sales price; maximum and minimum; annual rate of lease.
39397. Public agencies proposing to purchase or lease land; findings; approval.
39397.5. Public agencies; surplus school property purchases; plans; operative date of section.
39398. Maintenance by public agencies; uses of land; reacquisition by school district.
39399. Law governing.
39400. Failure of compliance by school district; validity of transfer or conveyance.
39401. Exemption of surplus school sites.
39402. Alternative agreements for disposition of property.
39403. Limitation on rights of acquisition or lease by public agencies.
39404. Excluded school districts.

*Article 5 was added by Stats.1980, c. 736, p. 2199, § 2.*

**Cross References**

Sale or lease of surplus property, failure to comply with preferred uses, required sale under this article, see § 39360.3.

### § 39390. Legislative intent

The Legislature is concerned that school playgrounds, playing fields and recreational real property will be lost for such uses by the surrounding communities even where those communities in their planning process have assumed that such properties would be permanently available for recreational purposes. It is the intent of the Legislature in enacting this article to allow school districts to recover their investment in such surplus property while making it possible for other agencies of government to acquire the property and keep it available for playground, playing field or other outdoor recreational and open-space purposes.

(Added by Stats.1980, c. 736, p. 2199, § 2.)

**Cross References**

Rezoning of unused school property, see Government Code § 65852.9.

**Library References**

Schools 46.
C.J.S. Schools and School Districts § 241 et seq.

### § 39391. Application of article

This article shall apply to any school site owned by a school district, which the governing board determines to sell or lease, and with respect to which the following conditions exist:

(a) Either the whole or a portion of the school site consists of land which is used for school playground, playing field, or other outdoor recreational purposes and open-space land particularly suited for recreational purposes.

(b) The land described in subdivision (a) has been used for one or more of the purposes specified therein for at least eight years immediately preceding the date of the governing board's determination to sell or lease the school site.

(c) No other available publicly owned land in the vicinity of the school site is adequate to meet the existing and foreseeable needs of the community for playground, playing field, or other outdoor recreational and open-space purposes, as determined by the governing body of the public agency which proposes to purchase or lease land from the school district, pursuant to Section 39397.

(Added by Stats.1980, c. 736, p. 2199, § 2. Amended by Stats.1981, c. 507, p. 1862, § 1.)

### § 39392. School site; governing board

As used in this article, "school site" means a parcel of land, or two or more contiguous parcels, which is owned by a school district. "Governing board" means the governing board of the school district which owns the school site.

(Added by Stats.1980, c. 736, p. 2200, § 2.)

### § 39393. Authorization to sell or lease school sites

The governing board of any school district may sell or lease any school site containing land described in Section 39391, and, if the governing board decides to sell or lease such land, it shall do so in accordance with the provisions of this article.

(Added by Stats.1980, c. 736, p. 2200, § 2.)

### § 39394. Offers to sell or lease school sites to public agencies; priorities; discretion; notice of intent to purchase or lease

Notwithstanding Section 54222 of the Government Code, the governing board, prior to selling or leasing any school site containing land described in Section 39391, excluding that portion of a school site retained by the governing board pursuant to Section 39396, shall first offer to sell or lease that portion of the school site consisting of land described in Section 39391, excluding that portion retained by the governing board pursuant to Section 39396, to the following public agencies in accordance with the following priorities:

(a) First, to any city within which the land may be situated.

(b) Second, to any park or recreation district within which the land may be situated.

(c) Third, to any regional park authority having jurisdiction within the area in which the land is situated.

(d) Fourth, to any county within which the land may be situated.

The governing board shall have discretion to determine whether the offer shall be an offer to sell or an offer to lease.

An entity which proposes to purchase or lease a school site offered by a school district shall notify the district of its intention, in writing, within 60 days after receiving written notification from the district of its offer to sell or lease.

(Added by Stats.1980, c. 736, p. 2200, § 2.)

### § 39396. Retention of part of school site

In determining what portion of a school site shall be offered for sale or lease pursuant to this article, the governing board may retain any part of the school site containing structures or buildings, together with such land adjacent thereto which, as determined by the governing board, must be included in order to avoid * * * reducing the * * * value of that part of the school site containing such structures or buildings to less than 50 percent of fair market value.

(Added by Stats.1980, c. 736, p. 2200, § 2. Amended by Stats.1981, c. 507, p. 1862, § 2.)

**Cross References**

Sale or lease of surplus property, failure to comply with preferred uses, application to property retained under this section, see § 39360.3.

### § 39396. Sales price: maximum and minimum: annual rate of lease

(a) Except as otherwise provided in subdivision (b) or (e), the price at which land described in Section 39391, excluding that portion of a school site retained by the governing board pursuant to Section 39396, is sold pursuant to this article shall not exceed the school district's cost of acquisition, calculated as a pro rata cost of acquiring the entire parcel comprising the school site, adjusted by a factor equivalent to the percentage increase or decrease in the cost of living from the date of purchase to the year in which the offer of sale is made, plus the cost of any improvement to the recreational and open-space portion of the land which the school district has made since its acquisition of the land. In no event shall * * * the price be less than 25 percent of the fair market value of the land described in Section 39391 or less than the amount necessary to retire the share of local bonded indebtedness plus the amount of the original cost of the approved state aid applications on * * * the property, excluding that portion of a school site retained by the governing board pursuant to Section 39394, at the time of the offer.

These provisions shall apply to land that the school district acquired by gift or for consideration.

(b) A school district that offers a portion of a school site for sale may offer such portion of property for sale at its fair market value, provided the school district offers an equivalent size alternative portion of * * * that school site for school playground, playing field, or other recreational and open-space purposes.

(c) Land which is leased pursuant to this article shall be leased at an annual rate of not more than 1/10th of the maximum sales price determined pursuant to subdivision (a) of this section, adjusted annually by a factor equivalent to the percentage increase or decrease in the cost of living for the immediately preceding year.

(d) The percentage of annual increase or decrease in the cost of living shall be the amount shown for January 1st of the appropriate year by the then current Bureau of Labor Statistics Consumers Price Index for the area in which the school site is located.

(e) Whenever a school district closes a school site and sells any land described in Section 39391 pursuant to this article to help pay only for capital outlay costs incurred directly as a result of the transfer of pupils from the closed school to another school or other schools of the district, the sale price of the property determined pursuant to subdivision (a) shall be increased by an amount equal to the additional costs incurred due to the school closure.

(Added by Stats.1980, c. 736, p. 2200, § 2. Amended by Stats.1981, c. 507, p. 1863, § 3.)

**Cross References**

Sale or lease of surplus property, failure to comply with preferred uses, computation of sale price under this section, see § 39360.3.

### § 39397. Public agencies proposing to purchase or lease land: findings: approval

The governing body of a public agency which proposes to purchase or lease land from a school district pursuant to this article shall first make a finding, approved by a vote of two-thirds of its members, that public lands in the vicinity of the school site are inadequate to meet the existing and foreseeable needs of the community for playground, playing field, or other outdoor recreational and open-space purposes.

(Added by Stats.1980, c. 736, p. 2201, § 2.)

### § 39397.5. Public agencies; surplus school property purchases; plans; operative date of section

(a) No public agency may purchase surplus school property from a school district pursuant to this article unless it has first adopted a plan for the purchase of surplus school property. The plan shall designate the surplus site or sites all or a portion of which the public agency desires to purchase at the price established pursuant to this article and shall designate at least 70 percent of the total surplus school acreage as property which the agency does not desire to purchase at the price established pursuant to this article. Where the plan indicates that the agency desires to purchase only a portion of a school site at the price established pursuant to this article, it shall designate the percent of the property to be so purchased and provide a description of the general location of the property to be purchased, without designating the metes and bounds.

(b) Any property designated by public agencies as surplus school sites which the agencies do not wish to purchase, pursuant to subdivision (a), may be sold or leased by a school district without regard to the provisions of this article.

(c) This section shall become operative on April 1, 1982.

(Added by Stats.1981, c. 507, p. 1863, § 4, operative April 1, 1982.)

**Library References**

Schools ⟹74.
C.J.S. Schools and School Districts §§ 253, 263.

### § 39398. Maintenance by public agencies; uses of land; reacquisition by school district

Any land purchased or leased by a public agency pursuant to this article shall thereafter be maintained by such agency for playground, playing field, or other outdoor recreational and open-space uses. Land which prior to its sale or lease was used for playground or playing field purposes, shall continue to be maintained for such use by the acquiring agency, unless the governing body of that agency, by a two-thirds vote at a public hearing, determines that there is no longer a significant need for the land to be so used, in which case the land may thereafter be used for other outdoor recreational or open-space purposes. The school district * * * may, at any time, * * * reacquire the land at a price calculated in the manner prescribed in Section 39396, and the rights of reacquisition provided in this section shall be set forth in the deed or other instrument of transfer. If the governing board of the public agency determines that the land is no longer needed for playground, playing field, or other outdoor recreational and open-space purposes, the public agency shall offer the property to the school district for reacquisition under this section, and the school district shall notify the public agency within 60 days of its intent to reacquire * * * the land. If the school district intends to sell * * * the property within one year of the reacquisition date, the school district * * * may finance the reacquisition of * * * the land by lien against the proceeds to be obtained from the sale of * * * the land by the school district. If the school district fails to give the public agency timely notice of its intent to reacquire the property, or if it fails to exercise its right of reacquisition, the public agency * * * may use or dispose of * * * the property.

For purposes of this section, "cost of acquisition", as used in Section 39396, shall refer to the cost at which the land was acquired by the public agency.

(Added by Stats.1980, c. 736, p. 2201, § 2. Amended by Stats.1982, c. 466, p. 2013, § 29.)

### § 39399. Law governing

The sale or lease of land by a school district pursuant to this article shall be subject to, and governed by, the provisions of Article 2 (commencing with Section 39080) of Chapter 1 and Article 4 (commencing with Section 39360), except to the extent that the provisions of this article are inconsistent with a provision or provisions of Article 2 or 4, in which event the provisions of this article shall govern such sale or lease.

(Added by Stats.1980, c. 736, p. 2202, § 2.)

### § 39400. Failure of compliance by school district; validity of transfer or conveyance

Failure by the school district to comply with the provisions of this article shall not invalidate the transfer or conveyance of real property to a purchaser or encumbrancer for value.

(Added by Stats.1980, c. 736, p. 2202, § 2.)

### § 39401. Exemption of surplus school sites

Notwithstanding the other provisions of this article, any school district governing board may designate not more than two surplus school sites as exempt from the provisions of this article for each planned school site acquisition if the school district has an immediate need for an additional school site and is actively seeking to acquire such an additional site, and may exempt not more than one surplus school site if the district is seeking immediate expansion of the classroom capacity of an existing school by 50 percent or more.

The exemption provided for by this section shall be inapplicable to any school site which, under a * * * lease * * * executed on or before July 1, 1974, with a term of 10 years, was leased to a city of under 100,000 population for park purposes, was improved at city expense, and * * * used * * * for public park purposes.

(Added by Stats.1980, c. 736, p. 2202, § 2. Amended by Stats.1980, c. 1354, p. 4889, § 37.23, eff. Sept. 30, 1980, operative Jan. 1, 1981.)

Additions or changes indicated by underline; deletions by asterisks * * *

Historical and Statutory Notes

**1980 Legislation.**

Section 64.3 of Stats.1980, c. 1354, p. 4885, provides:

"Section 37.23 of this act shall become operative on January 1, 1981."

### § 39402. Alternative agreements for disposition of property

A school district having a school site described in Section 39391 may, as an alternative to sale or lease of the land pursuant to the foregoing provisions of this article, enter into other forms of agreement concerning the disposition of such property with any entity enumerated in Section 39394, in accordance with the priorities therein specified, including, but not limited to: an agreement to lease to such entity all or part of the school site for a specified term, with an option to purchase such properties at the end of the term; an agreement granting to such entity a permanent open-space easement for recreational use over a portion of the leased site; and, if the lessee or a grantee under such an agreement is an entity having zoning powers, an agreement requiring such entity to rezone any portion of the property retained by the school district in accordance with conditions specified in the agreement, to the extent that rezoning in accordance with such conditions is in compliance with applicable laws of the state.

(Added by Stats.1980, c. 736, p. 2202, § 2.)

### § 39403. Limitation on rights of acquisition or lease by public agencies

(a) No more than 30 percent of the total surplus school acreage owned by a school district may be purchased or leased by public agencies pursuant to this article.

(b) The right of any public agency to purchase or lease surplus school property pursuant to this article shall exist only with respect to an amount of surplus school acreage within its jurisdictional boundaries which, when added to the surplus school acreage within its jurisdictional boundaries already purchased or leased pursuant to this article, will not exceed 30 percent of the surplus school acreage owned by the school district which is within the jurisdictional boundaries of that agency.

(c) For purposes of this section, "surplus school acreage" of a school district means property which is owned by a district and not used for school purposes, including, but not limited to, undeveloped property and property which contains school buildings that are not in use as a result of a school closure and which is not subject to any lease or agreement executed on or before July 1, 1974, for a term in excess of six years, in which any city containing a population of less than 100,000 had use of the property for park purposes on January 1, 1981, and had improved the property.

(d) Nothing in this section shall be construed to deny local agencies the opportunity to purchase at full market value all or part of the 70 percent of the total surplus school acreage which is not affected by this article.

(Added by Stats.1981, c. 1113, p. 4345, § 9.)

Historical and Statutory Notes

**1981 Legislation.**

Former § 39403, added by Stats.1980, c. 734, p. 2203, § 2, amended by Stats.1981, c. 507, p. 1864, § 5, relating to same subject matter, was repealed by Stats.1981, c. 1113, p. 4345, § 8.

**Derivation:** Former § 39403, added by Stats.1980, c. 734, p. 2203, § 2, amended by Stats.1981, c. 507, p. 1864, § 5.

**Library References**

Schools 65.

C.J.S. Schools and School Districts § 241 et seq.

### § 39404. Excluded school districts

This article shall not apply to any school district having more than 400,000 pupils in average daily attendance.

(Added by Stats.1980, c. 736, p. 2203, § 2.)

## ARTICLE 6. OWNERSHIP OF FIXTURES IN TERRITORY WITHDRAWN FROM DISTRICT [REPEALED]

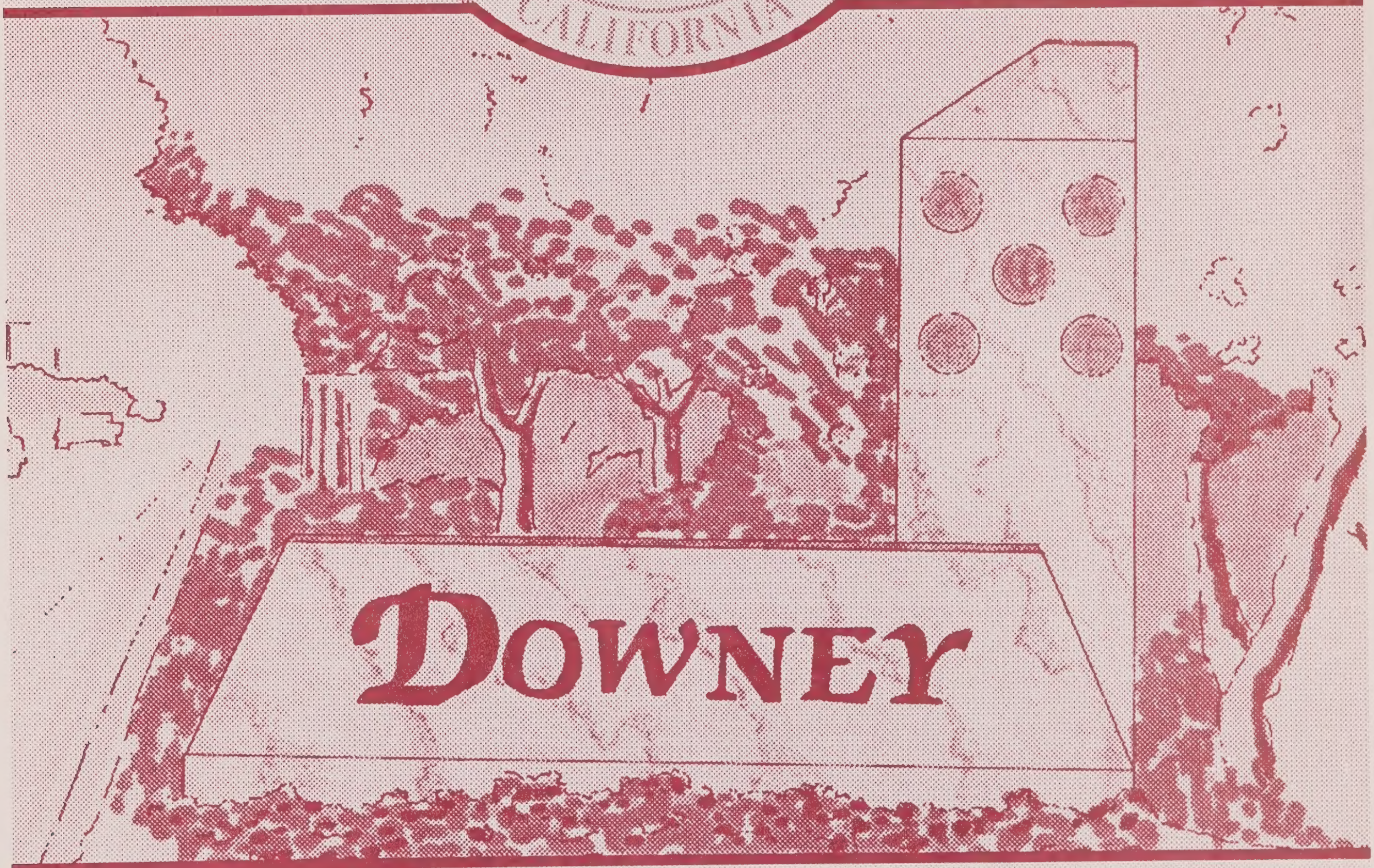
*Article 6 was repealed by Stats.1980, c. 1192, p. 4024, § 4.*

### §§ 39420, 39421. Repealed by Stats.1980, c. 1192, p. 4024, § 4

Historical and Statutory Notes

No right or obligation arising out of any provision of law repealed by Stats.1980, c. 1192, p. 4003, to be abolished or impaired by the provisions of Stats.1980, c. 1192, see note under § 35500.

# D·O·W·N·E·Y
# GENERAL PLAN



# DESIGN
## CHAPTER

# DESIGN CHAPTER

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# DESIGN

## INTRODUCTION

Downey citizens are proud of their city and its heritage. Downey is one of the most well known residential cities in the Southeast area of Los Angeles County. Although Downey is a premier community in Southeast Los Angeles County, it lacks a strong visual image. The purpose of the Design Chapter is to create a strong visual image by improving the quality of design in Downey.

Good design is a means to retain and strengthen the visual image of the community. The chapter promotes Design Guidelines as a way to improve design. It also reinforces the city's decision to continue the work of the Design Review Board.

Several design issues were identified; City entryways need to be improved, property maintenance is a way to improve the City's image, and finally, many of Downey's buildings are older and on the verge of being remodeled or torn down and replaced. Many of those are in the historic downtown area, an area that should become the focal point and identity of the community.

## DESIGN ISSUES

### Issue One

Downey needs a strong visual image throughout the City.

### Issue Two

Downey needs strong entryway statements that clearly define the City's entryways and boundaries.

### Issue Three

The lack of maintenance on properties in Downey detracts from the design of many structures and from the City's image.

### Issue Four

Downey's historic downtown area should become the focal point for the community.

### Issue Five

Many of the buildings in Downey are older and are now being remodeled, renovated or replaced.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address design issues in the City of Downey.

### GOALS

Preserve and enhance Downey as a premier community by developing policies and programs that promote positive design characteristics and a strong visual image for the community.

Establish the Design Review Board as the mechanism to carry out the design policies of the General Plan.

- Issue One

Downey needs a strong visual image throughout the City.

Policies

8.1.1 The City shall require new developments and major renovations to have design "links".

8.1.2 The City shall require new developments to be "internally consistent" in design.

8.1.3 The City shall encourage and develop programs to preserve the integrity of neighborhoods by evaluating the proportional relationship between structures.

**Programs**

The City shall:

8.1.1.1 Require new developments and major renovations, including parcels smaller than 10,000 square feet, to use "design links" such as hardscape, lighting, landscaping, color, signing and common building materials to visually link properties;

8.1.1.2 Continue the policy of requiring landscape strips with turf and trees on the public and private property on Firestone Blvd. and wherever feasible;

8.1.2.1 Adopt Design Guidelines for the public's information featuring design "links".

8.1.2.2 Develop programs to educate the public about the Design Guidelines and their purpose;

8.1.2.3 Security devices for commercial and industrial structures, such as security bars, when applied, shall be installed on the inside of windows and doors. Residential security bars shall be designed and installed to be compatible with the existing structure;

8.1.3.1 Adopt an ordinance addressing single family residential design such as bulk, massing & second stories.

- Issue Two

Downey needs strong entryway statements to clearly define the City's entryways and boundaries.

**Policy**

8.2.1 The City shall develop a Master Plan for City entryways.

**Programs**

The City shall:

8.2.1.1 Require new developments and major renovations, public and private, at primary entryways, to have entry elements or statements such as monument signs, landscaping and hardscaping as designated in the Entryway Master Plan.

8.2.1.2 Landscape, maintain and expand the City's street medians at City entries and set up Capital Improvements Programs and priorities.

8.2.1.3 Establish landscape and lighting maintenance districts to fund median and entry costs, such as the existing district in the Rancho Business Center, along Lakewood and Firestone Boulevards.

- Issue Three

The lack of maintenance on properties detracts from the design of many structures and from the City's image.

**Policy**

8.3.1 The City shall require property maintenance, both public and private, in Downey.

**Programs**

The City shall:

8.3.1.1 Require all properties to be maintained, including landscaping, building condition, and overall appearance;

8.3.1.2 Adopt a property maintenance ordinance;

8.3.1.3 Increase pro-active code enforcement for property maintenance;

8.3.1.4 Continue to support the Keep Downey Beautiful programs;

8.3.1.5 Implement a commercial/industrial parkway maintenance program for the maintenance of the public right-of-way;

8.3.1.6 Phase out bus bench advertising, and establish a program of installing new bus benches and shelters;

8.3.1.7 Remove bus benches if not on bus lines.

- Issue Four

Downey's historic downtown area should become a focal point for the community.

**Policy**

8.4.1 The City shall adopt Design Guidelines for the historic downtown area.

**Programs**

The City shall:

8.4.1.1 Adopt a Specific Plan, including Design Guidelines, for the historic downtown area.

8.4.1.2 Include a landscape master plan, with downtown improvements and street trees, open space, plazas, public art & banners.

8.4.1.3 Include standards for new development as well as remodeling. The standards should focus on design, landscaping and amenities.

8.4.1.4 Institute a facade improvement program at no charge for consultation to land owners and merchants.

- Issue Five

Many of the buildings in Downey are older and are now being remodeled, renovated or replaced.

**Policies**

8.5.1 The City shall require the renovation, remodeling or replacement of older structures to be reviewed by the Design Review Board.

**Programs**

The City shall:

8.5.1.1 Require new multi-family, commercial and industrial projects and major renovations, including public projects and rights of way, to be reviewed by the Design Review Board for architecture, landscaping, and signing;

8.5.1.2 Require the Design Review Board to ensure compatibility between parcels, by use of design "links";

8.5.1.3 Encourage the use of reclaimed water, drought resistant plants and drip irrigation for landscaping;

8.5.1.4 Adopt a monitoring program, including property maintenance, to ensure compliance with the Design Guidelines of the Design Review Board.

## I. DOWNEY'S IMAGE

### Background

Downey needs a strong visual image throughout the City. To retain and to strengthen Downey's position as a premier community in the Southeast area of Los Angeles County, Downey needs to improve its' visual image. There are many communities in the Los Angeles Basin that have distinct images-The City of Industry is clearly an industrial city, Beverly Hills is an upscale residential and commercial city, Palos Verdes is residential. Downey lacks the visual image that gives a community a strong identity.

- **Design Links**

Some communities, such as Santa Barbara and San Dimas, have design themes in the commercial areas. Santa Barbara has a Spanish theme and San Dimas' is western. Downey has decided to create a strong visual image using design "links". Strong entryways and boundaries will also help create the city's image. The Design Review Board is an integral part of that design process.

Design "links", design elements that link properties, will be required on new and renovated buildings. The links will be compatible design elements, intended to create a unified look in the area. They will link architecture, either on an entire commercial or industrial block, or at a "neighborhood node". The neighborhood node is a neighborhood or general commercial area at a highly visible intersection. Its purpose is to stimulate and concentrate retail activity and to create neighborhood identity.

Design links can include landscaping, color and building materials as well as more abstract design qualities. Some or all of the following design links will be required:

- Height
- Bulk & general massing
- Major divisions of the facade
- Proportion of openings (window to wall relationships)
- Roof treatment
- Materials, colors and textures of building and signing
- General architectural character
    - Horizontal or vertical emphasis
    - Scale
    - Stylistic features and themes
- Relation to street
- Parking links
- Landscaping-parking lots, street setbacks, walkways
- Hardscape-paving, lighting fixtures

Design links will create consistency in neighborhoods as well as commercial streets. The policy of requiring landscape strips with turf and trees on Firestone Boulevard should be continued. The strips provide a green belt and design continuity along the Boulevard.

At the time the developer appears before the Design Review Board, she/he will be required to establish design links with neighborhood properties.

- **Design Guidelines**

Design Guidelines will be available to the public. They are intended to inform the public about the design process, including design links, and to guide the Design Review Board in its decisions. The guidelines illustrate design links and how to achieve them.

Design consistency throughout a project is crucial to creating a strong design image. The Design Guidelines emphasize that point and the Design Review Board will consider internal consistency in their review. One of the elements of design is the placement of security bars; if installed, they are required on the inside of windows and doors in commercial and industrial structures. Residential security bars should be designed and installed to be compatible with the existing structure; i.e. they should be painted to blend in with the home.

- Single Family Residences

When most of the single family residences in Downey were built, during the 50's and 60's, single story homes were popular. Throughout Downey, there are tracts of single story ranch type homes. Today, however, with larger families and life styles centered around the home and the back yard, larger homes are being built. Downey is beginning to experience "mansionization" or the phenomenon of large, two story homes replacing single story houses. Downey needs to develop programs to preserve the integrity of neighborhoods by evaluating the proportions of individual proposed homes and their impact on the neighborhoods. Bulk, massing and second stories all need to be addressed for single family residential design.

- **Strong Entryway Statements**

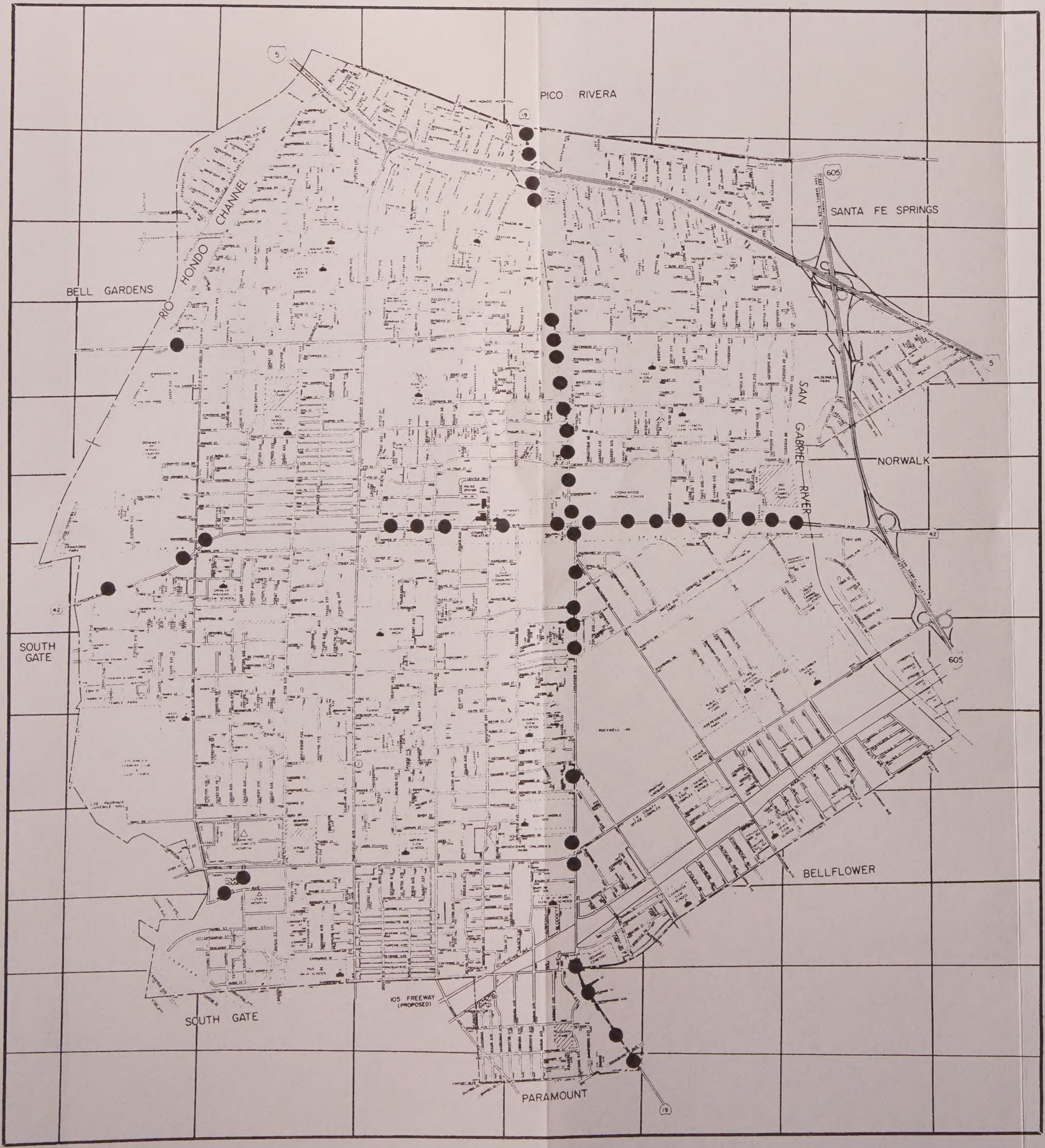
Downey needs strong entryway statements to clearly define the City's entryways and boundaries. Strong entrys are a way to achieve the strong visual image Downey needs. Downey's Master Plan for entrys will include public and private properties. The plan will require unified monument signs, landscaping and hardscaping at designated entryways. River beds on the east and west boundaries clearly define the city's edges and they will be retained as open space. Bridges over the river beds, on the east and west ends of Firestone Boulevard, are an opportunity for the city to develop a strong entry statement with street medians and monument signs. These would be reinforced by unified landscaping on nearby private developments. To finance these improvements, landscape and lighting maintenance districts need to be established, especially along Lakewood and Firestone Boulevards.

- **Property Maintenance**

The lack of maintenance on properties detracts from the design of many structures and from the City's image. When properties are not maintained, the city loses its premiere image and property values begin to stagnate. The Downey Municipal Code requires property maintenance; however a property maintenance ordinance, in its own section of the code, would simplify the process. The City has a Code Enforcement section, in the Community Development Department. Continuing the activities of the code enforcement program is vital to property maintenance. The City should continue to support and increase pro-active property maintenance.

# LEGEND

● Landscaped Street Median


PICO RIVERA
5
19
605
SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
SAN GABRIEL RIVER
NORWALK
42
SOUTH GATE
605
BELLFLOWER
105 FREEWAY (PROPOSED)
SOUTH GATE
PARAMOUNT
19

SOURCE: City of Downey

# LANDSCAPED STREET MEDIANS

## EXHIBIT VIII-1

## COMMUNITY DESIGN CHAPTER

0 650 1300 2600
SCALE IN FEET

## DOWNEY GENERAL PLAN

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Keep Downey Beautiful (KDB) was initiated by the City Council in 1977. It's purpose, as stated in the by-laws is "...to promote public interest in the general improvement and environment of the City of Downey." KDB is a city sponsored volunteer program that encourages property renovation and maintenance and discourages litter and graffiti. The Beautification Awards encourage property maintenance by recognizing citizens who renovate and improve their properties, whether residential, commercial and industrial. KDB's volunteer tree planting program also contributes to Downey's positive image. The city should continue to support the KDB programs.

Public property maintenance is also a component of the City's image. A commercial/industrial parkway maintenance program should be considered as a means of maintaining the parkways, including street trees, and of keeping the sidewalks clean and litter-free. Bus benches should be inventoried and benches removed if not on bus lines. Bus bench advertising does not bring the city much revenue, and since it contributes to visual blight, it will be phased out. A program to install new bus benches and shelters will be established.

- **Downey's Historic Downtown Area**

Downey's historic downtown area should become a focal point for the community. At present, the area, which is bounded by Paramount on the west, Fifth on the north, Brookshire on the east and the railroad on the south, is underused. It has one of the largest concentrations of older buildings in the city, and also one of the largest concentrations of vacant land. The Downtown Blue Ribbon Committee studied the area and recommended that the City develop a downtown specific plan. It also recommended that there be a design theme, carried out through architecture, public improvements and landscape. The design theme would distinguish the area from surrounding areas and contribute to the visual image of the city.

The downtown image would pull the downtown together, creating a distinct and inviting neighborhood. It would bring people back into the downtown with intimate people spaces and pedestrian areas designed to encourage strolling and browsing among the shops, theaters and restaurants.

A landscape master plan is contained in the downtown plan. The master plan includes downtown improvements and street trees, open space, plazas, public art and banners. Color and interest are an essential element of the plan as are a streetscape plan. The streetscape plan would detail street lighting, crosswalk paving, benches, trash cans, kiosks, bus benches and other public improvements.

A facade improvement program is also included. It would offer consultation to land owners and merchants at no charge. The agency should explore either a grant or low interest loan program to assist the private sector in the improvements.

## II. DESIGN REVIEW BOARD

Many of the buildings in Downey are older and are now being remodeled, renovated or replaced. The greatest period of growth in Downey was during the 1950's. Since most buildings have an average 40-year life, they are ready to be renovated or replaced. This is an opportunity for Downey to adopt Design Guidelines, reinforce the purpose of the Design Review Board and improve the physical image of the city. It is also an opportunity to create a community focal point in the historic downtown area.

The Design Review Board has six members and two alternates. The members are a licensed architect, a licensed landscape architect, a civil engineer, a general building contractor, a citizen-at-large and an owner of a retail/commercial business (sign review only). The alternates are a licensed architect and a civil engineer. The Board reviews site plans, elevations, landscape and irrigation plans and signing programs for new and renovated structures, except individual single-family residences, throughout Downey. The Board will also review public projects and rights-of-way.

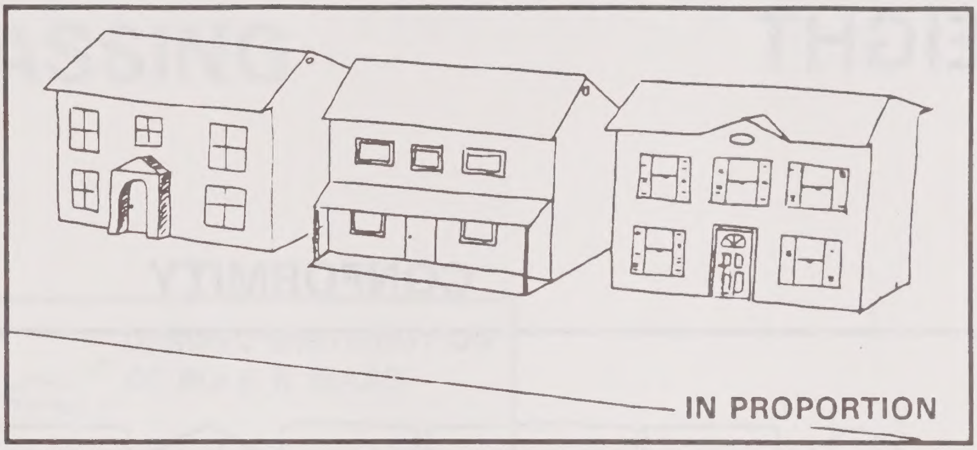
Design Guidelines, developed by the Board and City Staff, will outline, in detail, what design elements are expected. They will also explain design links and how they will be used. The role of the Board will also be explained. Guidelines will be given to applicants at their first visit to either the Building or Planning counters.

As discussed in the Conservation Chapter of the General Plan, reclaimed water is being installed in Downey. The Design Review Board will encourage the use of reclaimed water, drought resistant plants, and drip irrigation in projects.

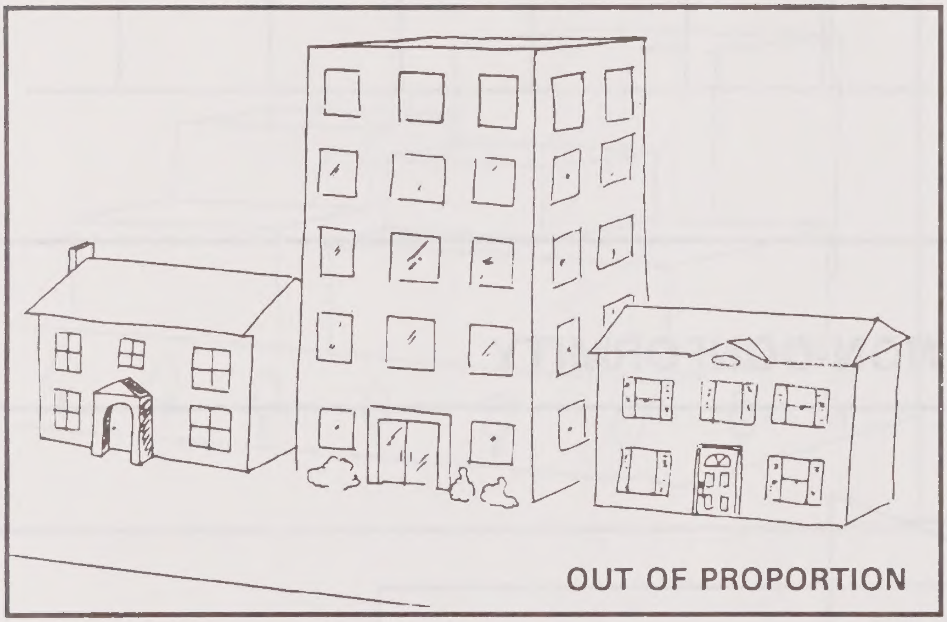
To ensure that the Board's work is being carried out, a monitoring program should be established. Properties would be checked periodically to be sure they comply with the Design Guidelines set down by the Board. The monitoring program will maintain the quality of the design approved by the Baord.

c:design.gp

# HEIGHT



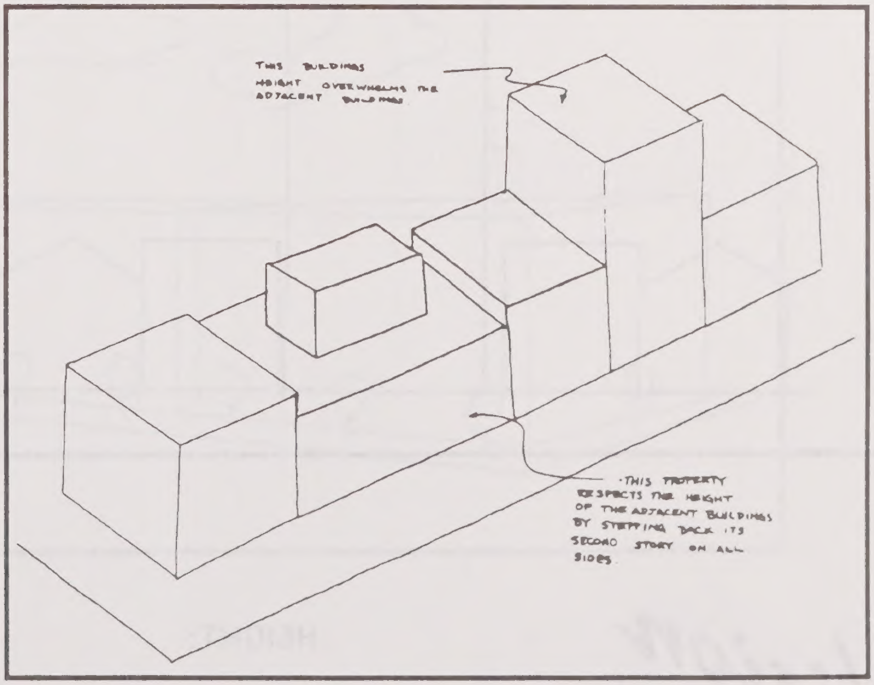
IN PROPORTION



OUT OF PROPORTION

**HEIGHT:**

The distance extending from the bottom to the top of a standing building.



THIS BUILDINGS HEIGHT OVERWHELMS THE ADJACENT BUILDINGS

·THIS PROPERTY RESPECTS THE HEIGHT OF THE ADJACENT BUILDINGS BY STEPPING BACK ITS SECOND STORY ON ALL SIDES.

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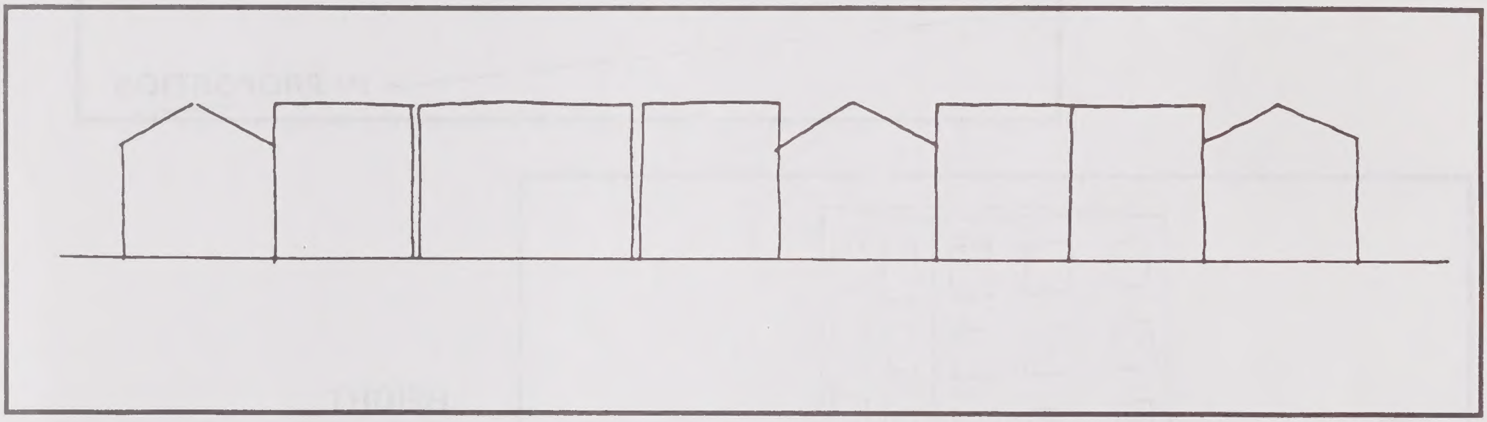
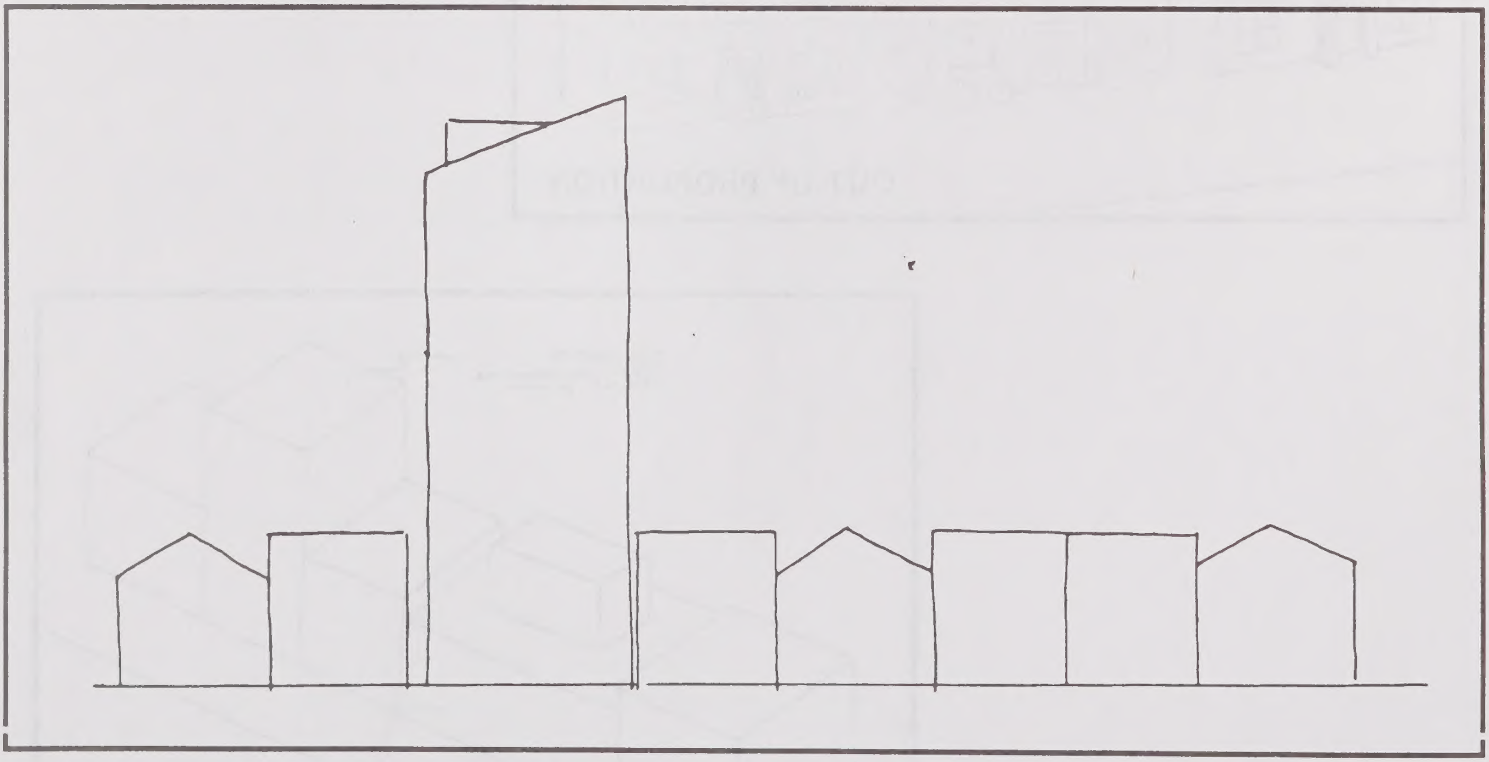
# HEIGHT

## CONFORMITY



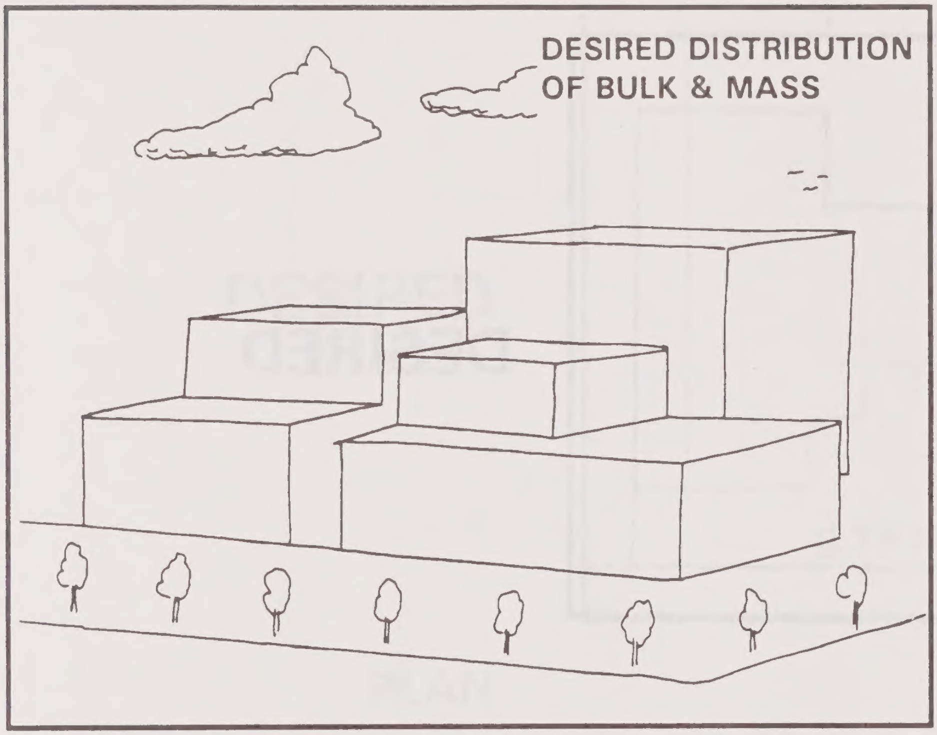
## NON-CONFORMITY



**HEIGHT:**

The distance extending from the bottom to the top of a standing building.

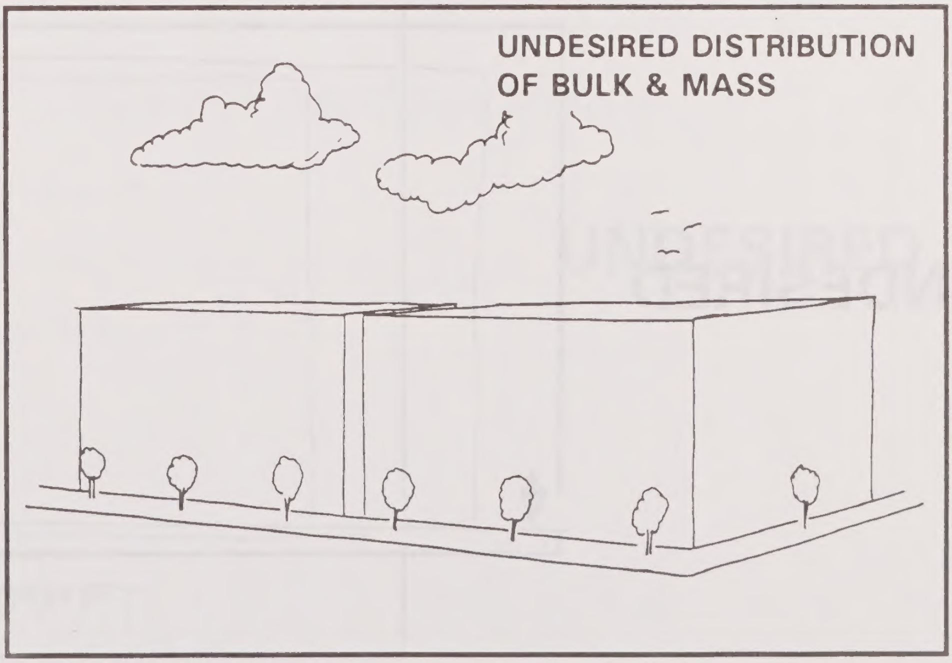
# BULK & MASSING



DESIRED DISTRIBUTION OF BULK & MASS

**BULK:**

To have the appearance of largeness or weight.

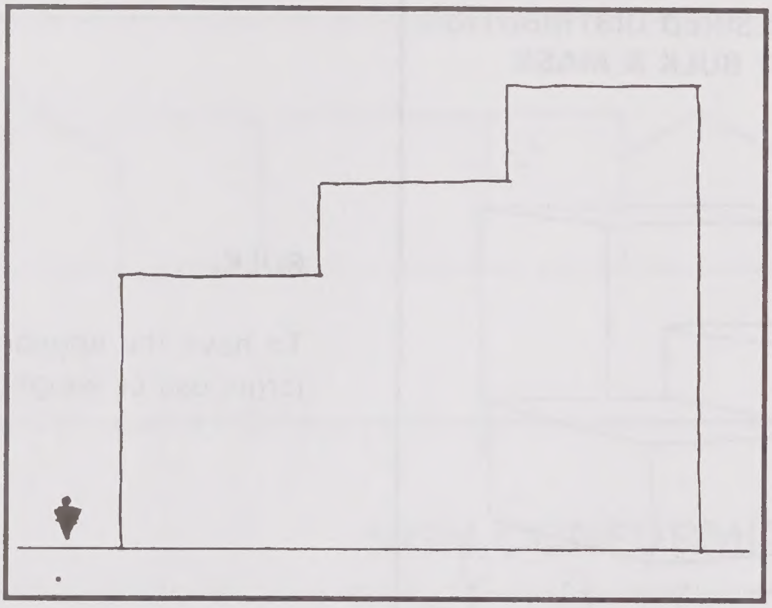


UNDESIRED DISTRIBUTION OF BULK & MASS

**MASSING:**

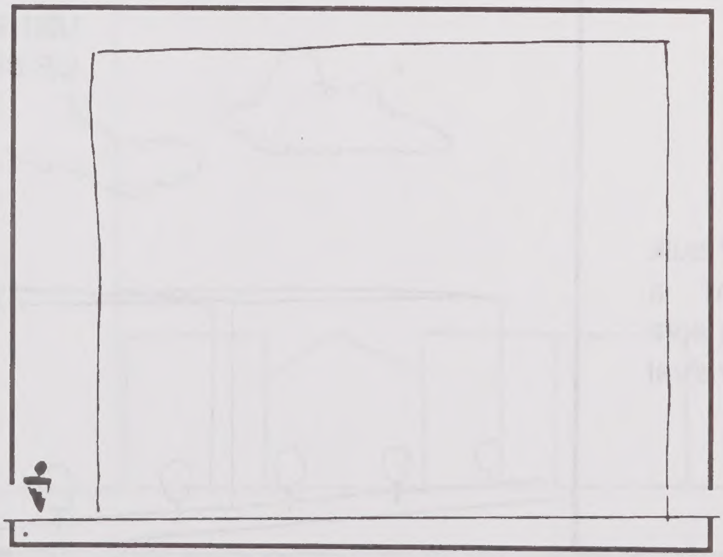
The distribution of bulk and volume of a building across an area to create a visual harmony.

# BULK & MASSING



**DESIRED**

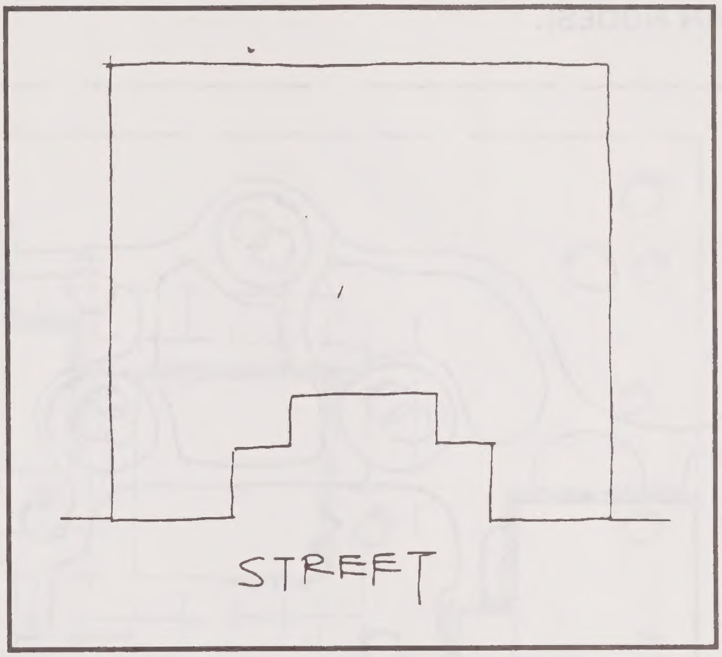
**UNDESIRED**



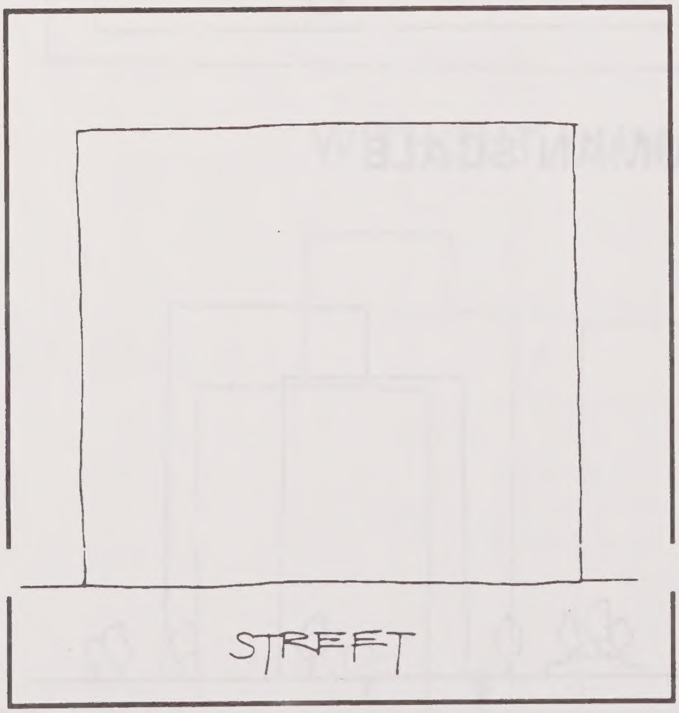
# BULK & MASSING

**DESIRED**

**PLAN**



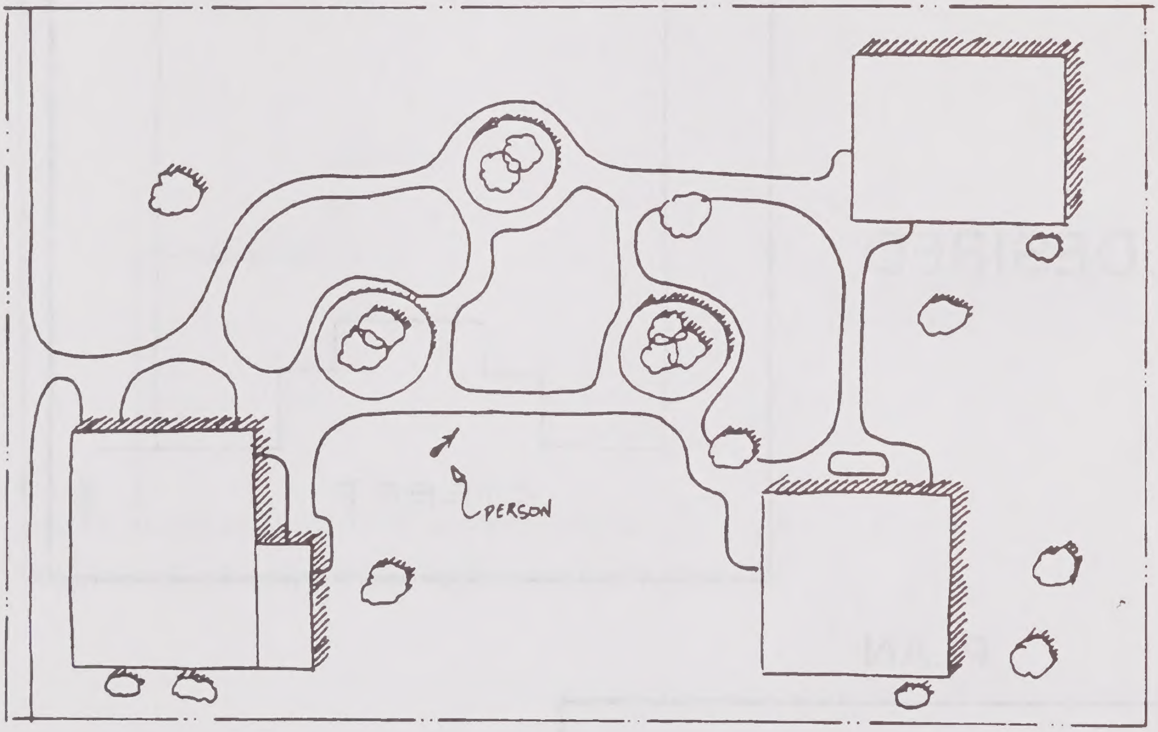
**PLAN**



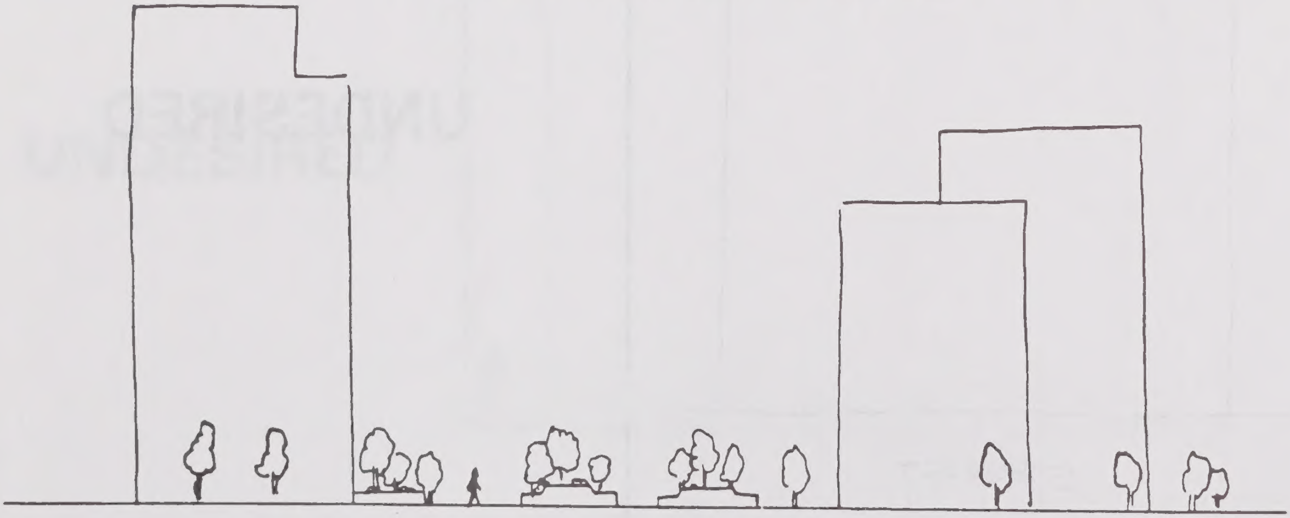
**UNDESIRED**

# HUMAN SCALE

HUMAN SCALE CAN BE CREATED WITH THE SEPARATION OF BUILDINGS AND THE USE OF OPEN SPACE WITH LANDSCAPING TO CREATE PEOPLE AREAS (PEDESTRIAN NODES).



## WITH HUMAN SCALE

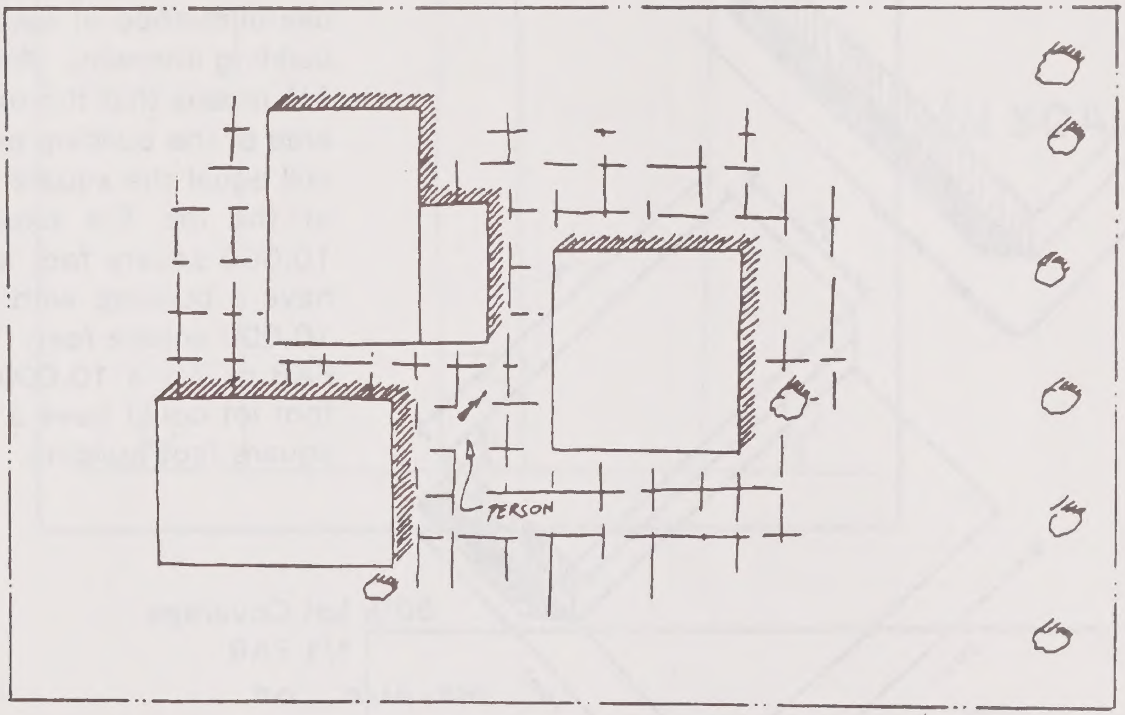


**HUMAN SCALE:**

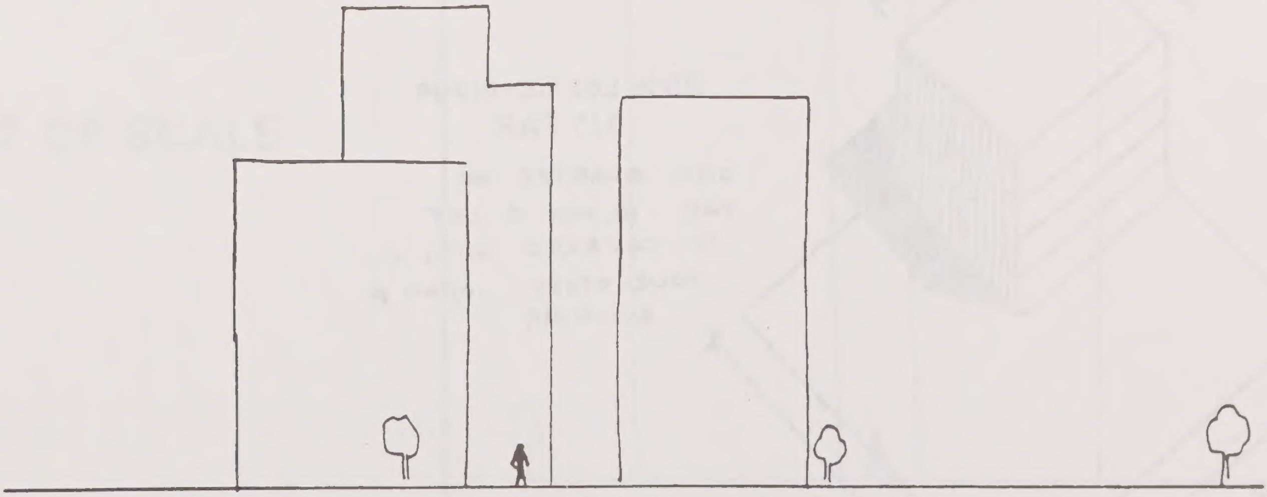
Relative size of architectural features as compared to the human figure.

# HUMAN SCALE

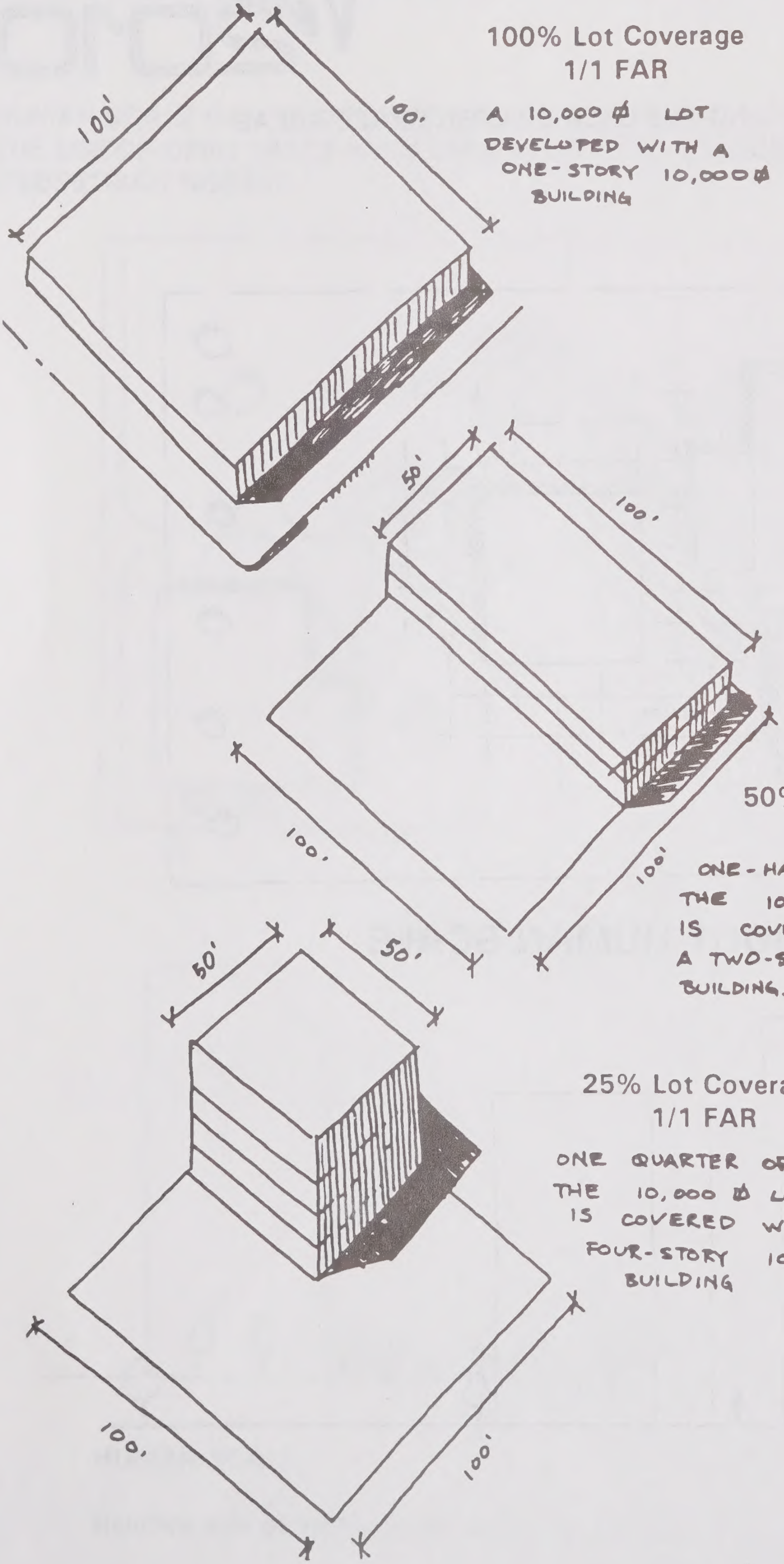
WITHOUT BUILDING SEPARATION, AND THE LACK OF OPEN SPACE AREAS PEOPLE AREAS ARE OVERWHELMED.



WITHOUT HUMAN SCALE



# FLOOR-AREA RATIO DISTRIBUTION



100% Lot Coverage
1/1 FAR

A 10,000 ⌀ LOT
DEVELOPED WITH A
ONE-STORY 10,000⌀
BUILDING

50% Lot Coverage
1/1 FAR

ONE-HALF OF
THE 10,000⌀ LOT
IS COVERED WITH
A TWO-STORY 10,000⌀
BUILDING.

25% Lot Coverage
1/1 FAR

ONE QUARTER OF
THE 10,000 ⌀ LOT
IS COVERED WITH A
FOUR-STORY 10000 ⌀
BUILDING

Floor area ratio (FAR's), the ratio of building floor area to the total building height, is a useful method of determining building intensity. An FAR of 1/1 means that the total floor area of the building permitted will equal the square footage of the lot. For example: a 10,000 square foot lot could have a building with at least 10,000 square feet. With an FAR of 2/1 a 10,000 square foot lot could have a 20,000 square foot building.

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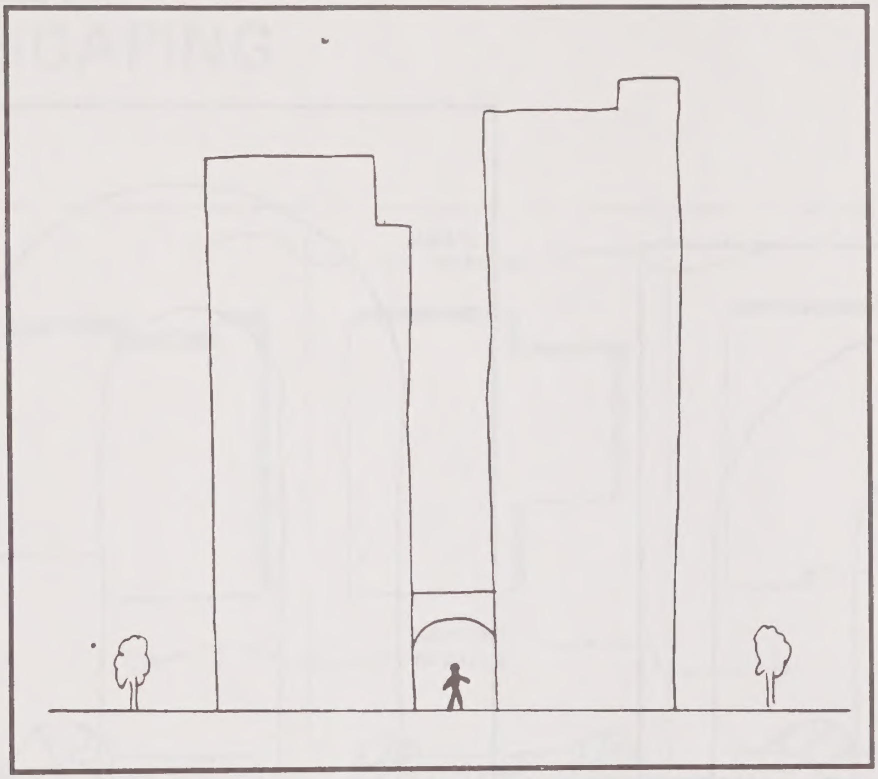
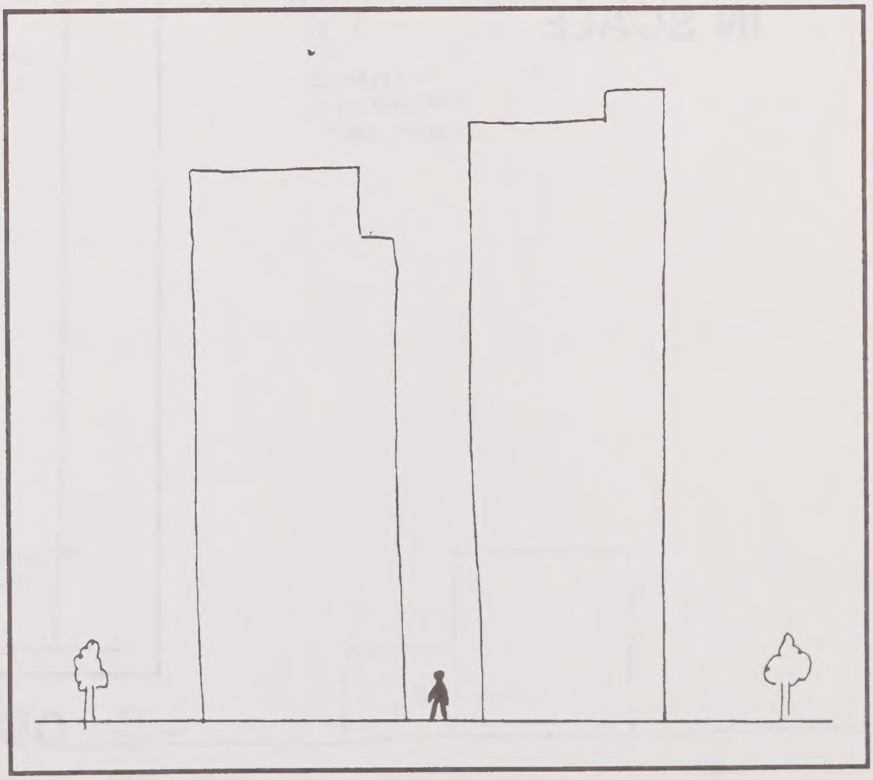
# HUMAN SCALE



IN SCALE

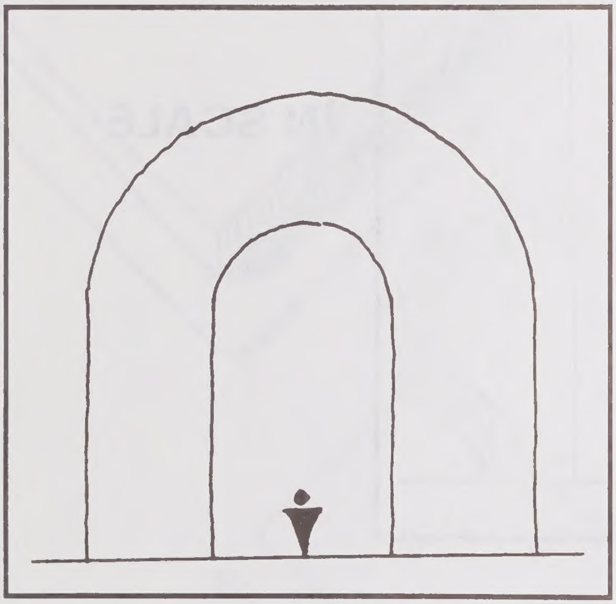
OUT OF SCALE



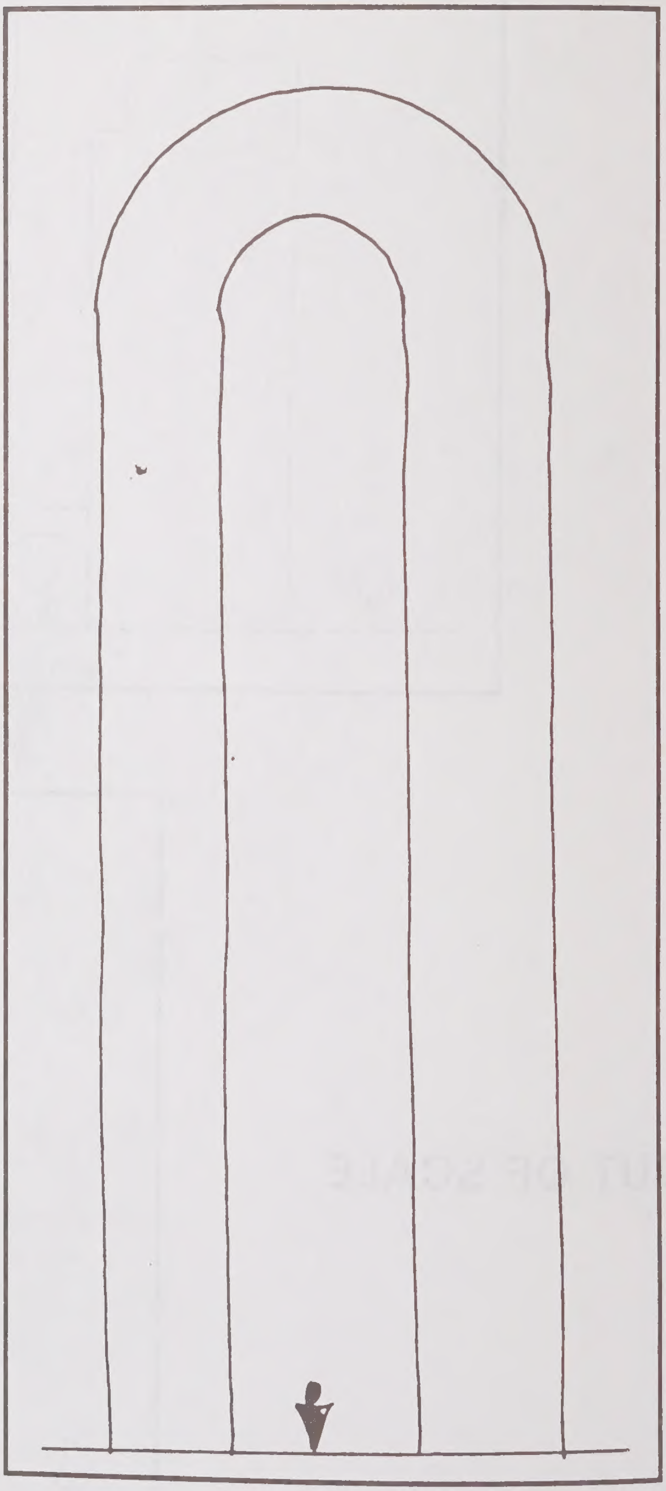
**HUMAN SCALE:**

Relative size of architectural features as compared to the human figure.

# HUMAN SCALE



IN SCALE

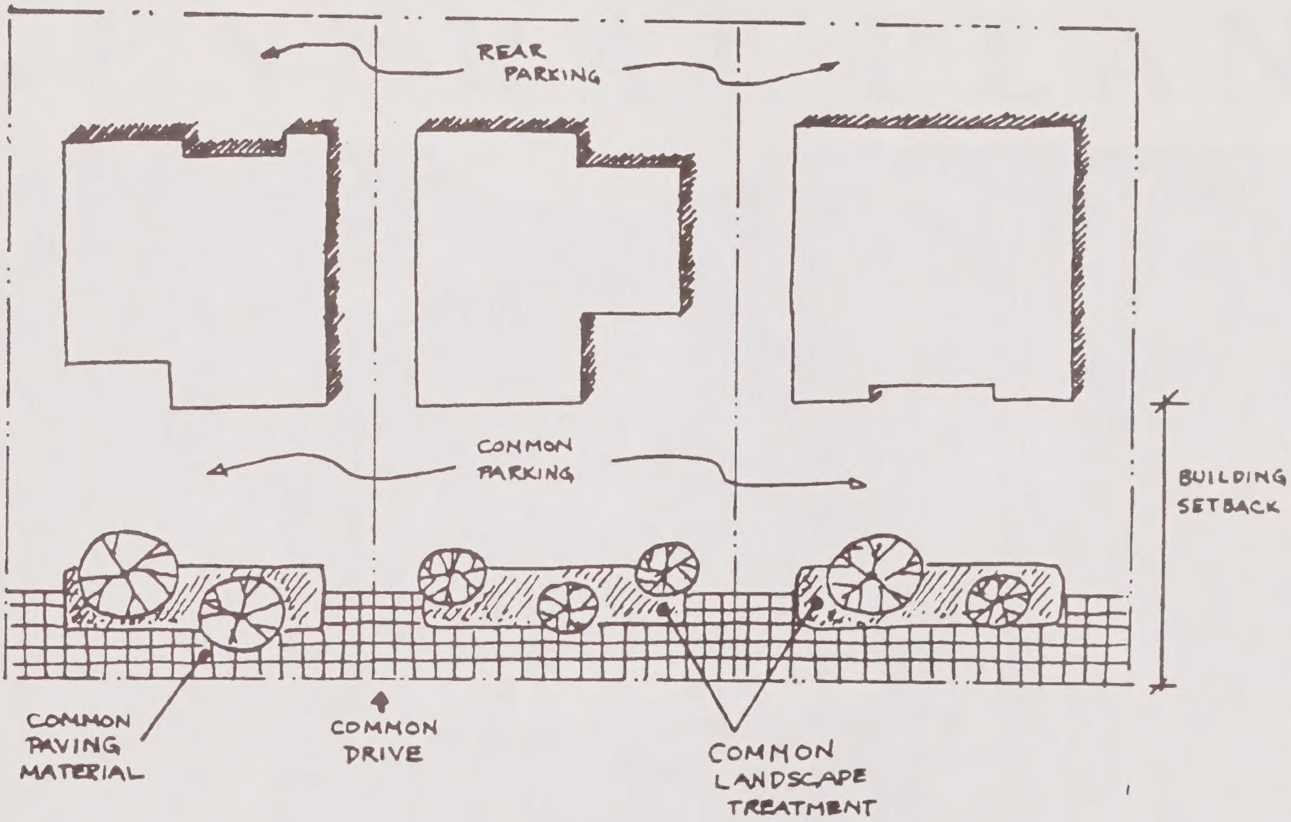


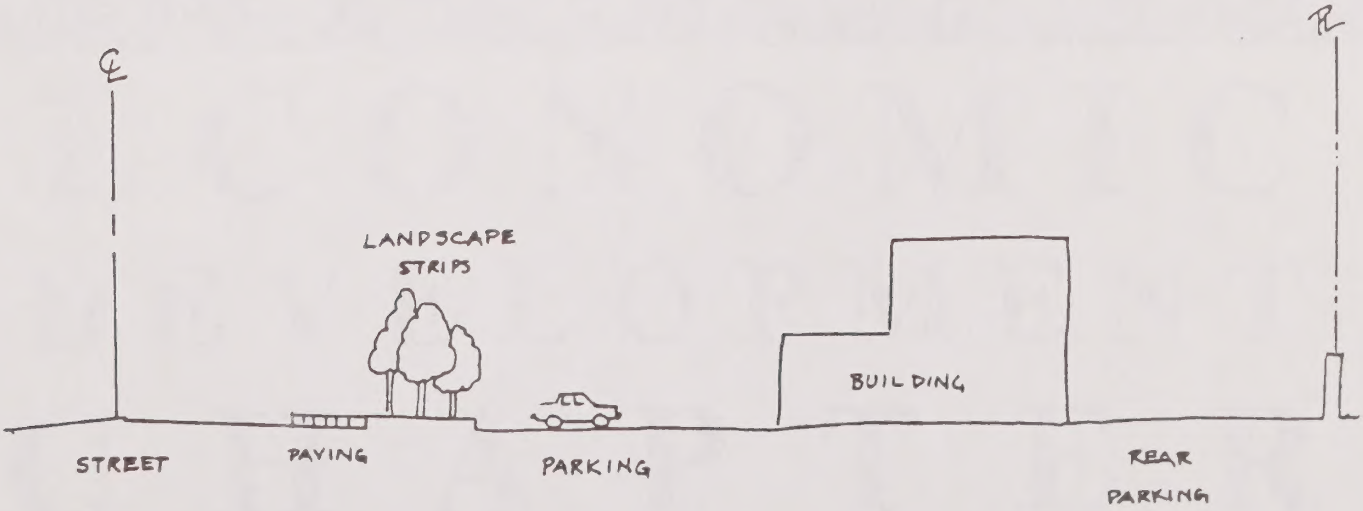
OUT OF SCALE

**HUMAN SCALE:**

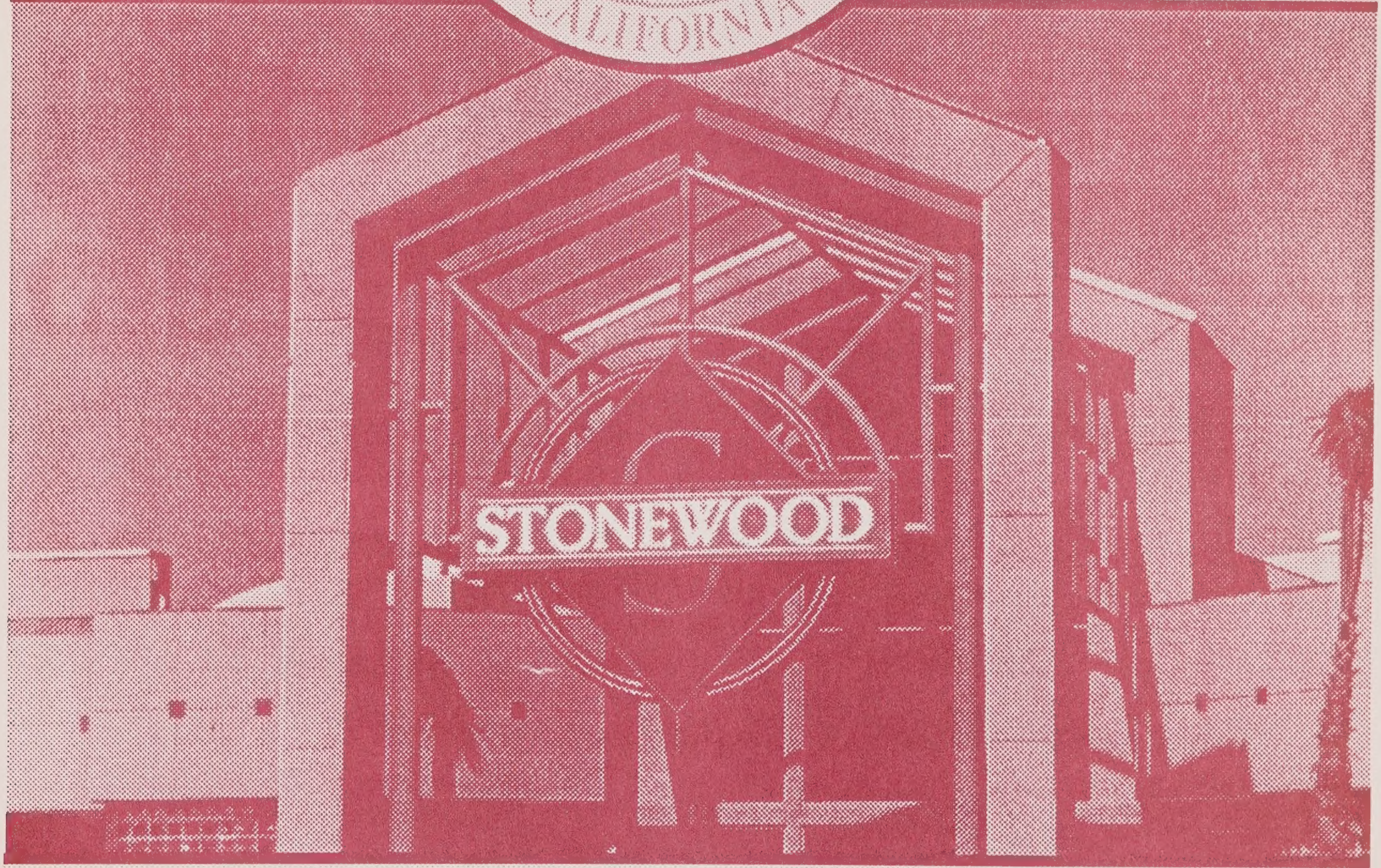
Relative size of architectural features as compared to the human figure.

# RELATION TO STREET PARKING LINKS LANDSCAPING


REAR PARKING
COMMON PARKING
BUILDING SETBACK
COMMON PAVING MATERIAL
COMMON DRIVE
COMMON LANDSCAPE TREATMENT


℄
PL
LANDSCAPE STRIPS
BUILDING
STREET
PAVING
PARKING
REAR PARKING

# D·O·W·N·E·Y
# GENERAL PLAN



# ECONOMIC DEVELOPMENT CHAPTER

## ECONOMIC DEVELOPMENT CHAPTER

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# ECONOMIC DEVELOPMENT

The Economic Development Chapter discusses how business activity in Downey may be enhanced. It also identifies key areas where efforts to promote new business should be focused to serve the city's best interests. The California Government Code does not require cities to include economic development chapters in their general plans. However, economic development has implications for land use, transportation, and other planning issues, and successful economic growth increases City revenue and Downey's ability to implement programs identified in other General Plan chapters. Therefore, the City of Downey has chosen to devote a separate chapter to economic development in the General Plan, in order to set forth a strategic policy for guiding the economic growth of the community.

## ECONOMIC DEVELOPMENT ISSUES

### Issue One

The City relies heavily on sales tax revenues to provide city services.

### Issue Two

The City needs an active economic development strategy.

### Issue Three

The Citizen's Downtown Blue Ribbon Committee identified the historic downtown as a significant resource for economic development.

### Issue Four

The City should establish policies and plan for the optimal economic development and benefit of the Rockwell site.

### Issue Five

Redevelopment needs to become a major influence on the growth and development of Downey.

### Issue Six

Downey must carefully evaluate the potential effectiveness and absorption rate of additional "strip" commercial development.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The policies and programs of this chapter have been developed to address the broad economic development goals below and the specific economic issues listed on the previous page.

### GOALS

Provide a diverse economic base, including a strong sales tax base, to maintain and enhance revenue.

Encourage public/private business partnerships.

Establish City services of the highest quality, including police, fire, parks, community development, public works, and other City programs and activities.

- **Issue One**

The City relies heavily on sales tax revenues to provide city services.

**Policies**

9.1 The City shall maximize and diversify its sales tax base.

**Programs**

The City shall:

9.1.1.1 Encourage only new land uses which are cost-effective to the City.

9.1.1.2 Continue the revitalization of Firestone Boulevard;

9.1.1.3 Develop specific plans for the remainder of Firestone within redevelopment areas, including a plan for commercial retail uses southeast of the Firestone/Stewart & Gray intersection. Consider specific plans for other areas of Firestone.

9.1.1.4 Encourage sales tax uses and other revenue generators for the remainder of Rancho Business Center;

9.1.1.5 Create a commercial/manufacturing land use designation that would encourage mixed-use business parks;

9.1.1.6 Develop economic strategies for the Imperial, Telegraph, Lakewood, and Paramount corridors;

9.1.1.7 Examine and implement benefit assessment districts and special service districts where applicable, including parking districts;

9.1.1.8 Capitalize on the regional draw generated by Stonewood Mall.

- **Issue Two**

The City needs an active economic development strategy.

Policies

9.2.1 The City shall work to retain existing businesses and attract new businesses.

9.2.2 The City shall continue to work toward expediting and streamlining the development review process.

Programs

The City shall:

9.2.1.1 Work to form a consensus with the local business community, Chamber of Commerce, merchant association, landowners, and civic leaders to promote the community;

9.2.1.2 Develop business retention, business expansion, and business attraction programs;

9.2.1.3 Conduct public information campaigns about business programs;

9.2.1.4 Develop and annually review multi-year capital improvements programs;

9.2.1.5 Expand existing programs such as property maintenance, landscaped median installation, facade improvements, graffiti removal and streetscape improvements—and develop new programs—that improve the appearance of the city and increase property values;

9.2.1.6 Maintain high quality for all public facilities including parks, public buildings and golf courses to create an environment that will attract further economic development;

9.2.1.7 Encourage Los Angeles County, the Downey Unified School District, the Post Office and utility companies to upgrade and maintain their facilities;

9.2.1.8 Encourage economic opportunities and joint ventures with the Downey Unified School District.

9.2.2.1 Maintain staffing levels to sustain and continue to promote professional plan processing.

- **Issue Three**

The Citizen's Downtown Blue Ribbon Committee identified the historic downtown as a significant resource for economic development.

Policies

9.3.1 The historic downtown area shall receive priority, after the Firestone corridor, for economic development.

Programs

The City shall:

9.3.1.1 Develop and implement a downtown specific plan;

9.3.1.2 Develop the former downtown courthouse property in a timely manner;

9.3.1.3 Inventory and assess City-owned downtown property for development potential.

- **Issue Four**

The City should establish policies and plan for the optimal economic development and benefit of the Rockwell site.

Policies

9.4.1 The City shall designate the Rockwell site a Mixed-Use area.

Programs

The City shall:

9.4.1.1 Try to retain Rockwell as a major employer. If Rockwell leaves, adopt a specific plan for the site, providing for industrial, commercial, and retail uses as well as park and/or open space;

9.4.1.2 Address the economic potential of the site.

- **Issue Five**

Redevelopment needs to become a major influence on the growth and development of Downey.

Policies

9.5.1 Redevelopment can plan a key role in the economic development of selected areas of the city.

Programs

The City shall:

9.5.1.1 Develop public education programs about redevelopment.

- **Issue Six**

Downey must carefully evaluate the potential effectiveness and absorption rate of additional "strip" commercial development.

Policies

9.6.1 The City shall establish an economic strategy for strip commercial development.

9.6.2 The City shall adopt development standards for strip commercial projects.

Programs

The City shall:

9.6.1.1 Concentrate certain commercial uses in neighborhood "nodes";

9.6.1.2 Phase out selected strip commercial areas.

9.6.2.1 Link neighborhood nodes through the use of consistent and complementary design elements.

## I. BACKGROUND

A strong community owes much to the spirit and involvement of its residents. Community pride and civic-mindedness, however, are not enough for a city to provide all the necessary and desired services to maintain the local quality of life. Even those residents unconcerned with the affairs of local government know that a variety of employment and shopping opportunities gives a community balance, makes it a desirable place to live, and enhances its image.

Although Downey is known primarily as a residential city, business and industry have played vital roles in the community's economic health from the age of agriculture to the age of aerospace. At one time, the railroad, the sunny climate, and Downey's image were enough to draw business here. With the phenomenal growth of Southern California's population and economy, however, competition between cities for lucrative businesses and large, profitable employers has intensified greatly. We can no longer assume that the best businesses will automatically desire to locate within our boundaries. Since the City's incorporation in 1956, the nature of retailing itself has also changed. Large corporate retail chains have multiplied, and the most popular of these businesses can attract customers from throughout the region. Large parcels of land, exposure to freeways or arterial streets, and available infrastructure are essential to attract most retailers. Although they remain an important economic element of any community—including Downey—small independent businesses have found their share of the Southern California market decrease and their ability to attract customers from other cities weaken.

The enclosure and renovation of Stonewood Shopping Center in 1990 was an important sign that Downey can respond to the character of the modern business market. Economic development is a function of many factors, including the national and state economies, the entrepreneurial spirit of local landowners and developers, the marketing and development strategy of important businesses, and proactive efforts of the City.

Local government has a vital interest in planning for economic development. Revenues received from sales and property taxes contribute to the City's ability to fund the services such as police, fire, road improvements, and recreation programs that Downey residents have come to expect. A city's economic development strategy also affects the nature of local land use and the character of the built environment. Conversely, both the built environment and land use patterns affect economic development. The key to a robust local economy is coordination between land use planning and economic development planning—encouraging an environment that meets the needs of business, and businesses that in turn enrich the city.

To assist in planning for Downey's economic growth, the City commissioned a multi-phase study of the local economy and commercial market from the firm of Market Profiles of Costa Mesa. These studies included analysis of how Downey's economy is influenced by local land use patterns. Tier 1 of this study focused on the commercial areas surrounding Stonewood Shopping center; Tier 2 studied the historic Downtown; and Tier 3 reviewed commercial areas throughout the city. A fourth report studied the fiscal impacts of further development of all types. Copies of these studies are available for review in the Planning Division at Downey City Hall.

## II. SALES TAXES

Sales taxes are an important part of a city's operating revenue, contributing an estimated 36.7% of the City's anticipated revenue for 1991-92 (see exhibit on next page). Cities receive tax revenue equivalent to 1% of the total retail sales in the city. Therefore, the City desires to pursue policies and programs that:

- continue to attract new businesses into Downey;
- retain existing businesses in the community;
- encourage residents of Downey and other communities to make their purchases here; and
- encourage those uses in the commercial and industrial zones that benefit the City's revenues.

Downey has a history of attracting shoppers from throughout this portion of Los Angeles County, particularly to Stonewood Shopping Center and to the community's auto dealers. The Market Profiles studies, however showed that many Downey residents travel to other communities to shop, particularly for:

Clothing
Art Supplies
Photographic Equipment
Books and Stationery
Office and School Supplies
Furniture
Appliances
Food

This migration represents a significant loss of potential sales tax revenue to the City of Downey. Since 1983—even after accounting for inflation—Downey has even seen *declining* sales in several of these areas. The studies suggested that Downey may support 340,000 square feet of additional commercial development *just to recover lost sales in the areas listed above.* Downey can accommodate even more retail space if it seeks to expand its share of the regional retail market.[1]

Cycles in different industries do not always coincide. In a period when auto sales are down, for example, sales of other retail goods may be strong. Therefore, to ensure as much stability as possible in the City's sales tax income, the City should encourage diversity in its tax base. Programs targeted toward new business should attract as many different kinds of firms as possible.

Sales tax revenue is a critical part of the community's financial planning. The City has an interest in ensuring, to the greatest extent possible, that this important source of revenue remains secure and that it will expand over time. A proactive economic development plan is an important part of that process.

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[1] Market Profiles Study, Tier 1. ppII-1 - II-4.

## III. ACTIVE ECONOMIC PLANNING

### The Importance of City Involvement

In a competitive region where municipalities vie for the most lucrative businesses, programs must be developed and implemented to build and diversify Downey's economic base. Certainly, some market-driven economic growth occurs independently, but the City has a vital interest in determining the *kinds* of businesses that Downey needs, *where* those businesses should go, the desired *scale* of new business, the *rate* at which such development should occur in order not to burden existing infrastructure, and the *methods* by which the City can encourage growth—as well as discourage expansion of uses that would not benefit the City.

Downey has economic activity in nearly all neighborhoods within its boundaries. A plan for City participation in economic development must prioritize those districts—Where will growth most benefit the City? Where will it most likely succeed? Where will growth act as a catalyst for additional *private-sector* growth? Where will economic development most enhance Downey's competitive position within the Southern California economy?

This chapter was written during a period of economic recession, which heightens competition between communities for revenue-producing enterprises and reinforces the need for a comprehensive municipal strategy to retain existing businesses and attract new ones. Several neighboring jurisdictions including Norwalk, Commerce, and South Gate have aggressive economic development programs that have attracted large retailers in recent years. The Market Profiles studies cautioned that continued growth of this sort could significantly reduce the market that Downey might otherwise capture. The programs and policies of this chapter are designed to promote and manage economic expansion in both tight financial times and years of relative economic prosperity.

### Business: Retain, Expand, Attract

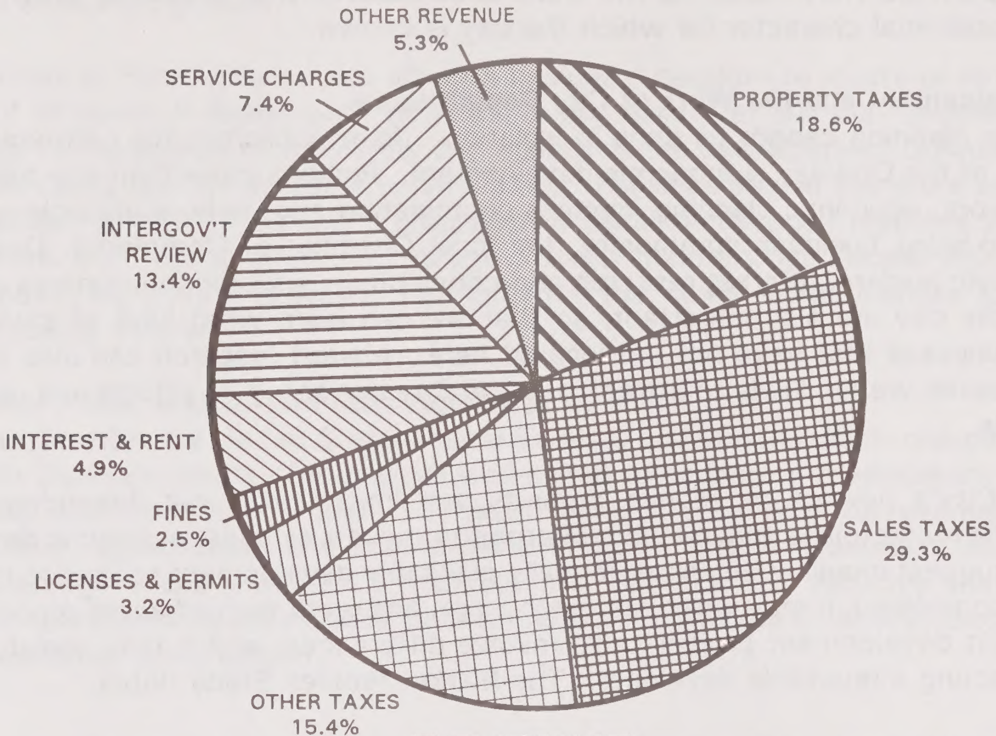
Issue Two identifies the need for a proactive economic development strategy. It is crucial to note that "economic development" does not *only* mean new business from outside entering the community. The City of Downey in 1991 had approximately 6000 active business licenses. A crucial element of any economic development strategy *must* include creating an environment that encourages existing businesses to remain in Downey, and, when it is time for those businesses to expand or move to larger quarters, to do so within our boundaries. The City's economic development strategy must include programs that encourage business retention, business expansion, and attraction of new business. All three are important components of economic growth.

### Publicity

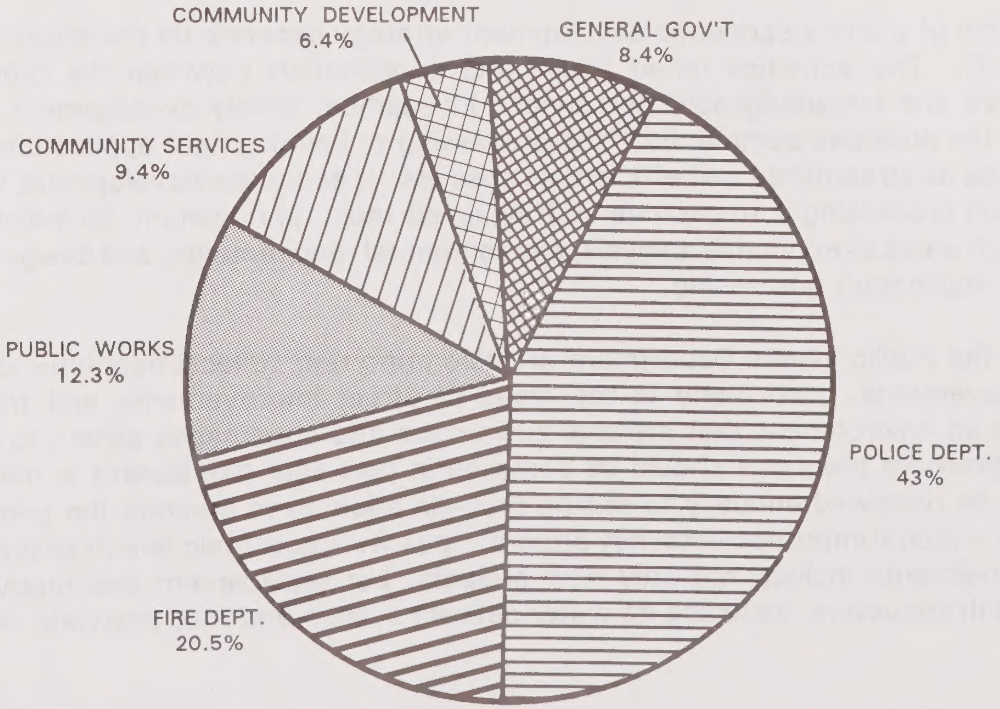
Programs must be well-publicized both within the business community and among the public. Communication with Downey residents is particularly important so that the City's strategy is understood. Community members will want to know why expansion of some areas is preferred and encouraged over expansion in others. They will have concerns about whether the city has adequate infrastructure to support the growth and how much will need to be spent over time to maintain that infrastructure. They will want to know how much traffic new developments will

# 1991 - 1992

# GENERAL FUND BUDGET



REVENUE



EXPENDITURES

SOURCE: CITY OF DOWNEY

produce and how it can be mitigated, in order to protect the safety and peace of neighborhood streets. Above all, Downey residents will want to be assured that economic growth does not threaten the residential character for which the city is known.

**Economic Development and the Work of City Departments**
Good economic planning cannot be done in isolation. Joint public/private partnerships are an important goal of the Downey's economic development. Perhaps more than any other facet of a city's endeavors, economic planning involves coordination and—where possible—consensus between the existing business community, the local Chamber of Commerce, Downey landowners, and civic leaders. Market research and consultation with representatives of business from outside the city are also important, so that we can learn what kind of environment is desired by businesses that have not yet located here. Market research can also identify the types of businesses we are likely to attract, and the City can focus its efforts and resources on those industries.

Although the City's powers to acquire property are limited, it is not dependent solely on conditions of the marketplace and initiative of property owners to boost economic development. The City may suggest imaginative and potentially profitable development scenarios that owners may not have considered; it may introduce, encourage, and work with adjacent property owners to initiate a joint development project or to resolve differences; and it may assist a property owner in contacting a reputable developer. The Market Profiles Study notes:

> *In a situation such as Downey's where funds for acquisition are limited, such 'sweat equity' by the City pays dividends. It may be slower, it may be more time consuming, it may be more frustrating, but it often is successful.*[2]

Implementation of a city's economic development strategy depends on the efforts and skills of a trained staff. The activities noted above and coordination between the groups involved requires active and knowledgeable personnel. In addition, timely development is extremely important to the business community. The processing of development applications and design review must be as streamlined and efficient as possible. If economic development is to intensify *and* application processing is to improve staffing levels must, at minimum, be maintained. Staff training in such areas as economic analysis, environmental requirements, and design will expedite and improve application processing.

Activities of the Public Works Department are also important to local economic development. Capital improvements, particularly in the areas of street improvements and traffic control, contribute to an environment that attracts businesses and encourages others to remain here. Capital improvement programs should be designed in part with this benefit in mind, and such plans should be reviewed annually to ensure that—in addition to meeting the primary goals of public safety—capital improvements may promote the City's economic health as well. Important capital improvements include not only new projects, but replacement and renovation of the City's aging infrastructure, including its water-delivery system and road network. A progressive and systematic City strategy for maintaining its infrastructure is essential to the City's efforts to promote economic growth.

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[2] Market Profiles Study, Tier 1. pVIII-2.

Other activities of Public Works also affect a business' decision to locate or remain here. The condition of all public facilities such as parks, public buildings, and golf courses enhances the city's image to the business community and maintains the desirability of Downey as a place to travel for shopping and employment opportunities. Facilities should therefore be maintained to high standards. Similarly, the City's programs to install landscaped medians and other street improvements, and its programs to encourage property maintenance, facade improvements, and graffiti removal on private property also enhance the city's attractiveness to business and increase property values.

**Land of Other Public and Quasi-Public Agencies**
Los Angeles County, the United States Postal Service, and various utility companies own many acres within Downey—most of it in areas well-suited to economic development and some of it under-utilized and unattractive. Many of these uses generate little or no revenue to the City yet their efficiency, appearance, and maintenance do contribute to Downey's image. The City should encourage these entities to maintain and upgrade the facilities that they use, to consolidate operations where possible on a single site, and to sell or develop excess property to enhance economic development.

## IV. SPECIFIC PLANS

Specific plans are tools that respond to the specialized needs and influences of a particular area. They serve as localized zoning ordinances that implement the policies of the general plan. A specific plan identifies development options for an area including permitted uses, site planning regulations, and design requirements. They also identify future roadway and infrastructure improvements and suggest subdivision patterns. Government Code Section 65451(b) notes the required elements of a specific plan, which must identify its relationship to the general plan.

Specific plans are important methods for implementing economic development policies. Building regulations for an area can be tailored to support the needs of land uses and developments that the city would like to attract or retain. The development standards in a specific plan can provide economic incentives for property owners to develop their parcels. For example, a specific plan may allow greater lot coverage, reduced building separation and modified circulation and parking requirements that are not part of the City's standard zoning regulations.[3]

Specific Plans have been adopted in Downey for Rancho Los Amigos Business Park (1985, 1989), for Stonewood Shopping Center (1989), and for the commercial properties near the interchange of the Santa Ana and San Gabriel River Freeways (1991). Several additional areas have been identified as special economic development opportunities. These include areas that have considerable size, districts historically important to the city or to business in Downey, and sites with particularly advantageous exposure to freeways or other major arterials. Each area has its own characteristics, and specific plans that address those unique features are preferred to application of the City's standard zoning requirements. Economic development in the following areas would benefit from preparation of specific plans.

| KEY ECONOMIC OPPORTUNITY AREAS<br>RECOMMENDED FOR FUTURE SPECIFIC PLANS |
|---|
| Rancho Business Center: amendments to cover future phases |
| Firestone Boulevard: east of Stewart & Gray, north of the railroad |
| Firestone Boulevard: portions within redevelopment areas not covered by other specific plans |
| Firestone Boulevard: consider specific plans for remaining segments |
| Historic Downtown |
| Rockwell Site |

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[3] Market Profiles Study, Tier 1. ppVIII-2 - VIII-6.

### Rancho Business Center

One hundred twenty-one acres of Rancho Los Amigos, owned by Los Angeles County, is being developed for commercial and industrial uses under a series of specific plans—the first two of which were adopted in 1985 and 1989. Plans remain to be developed for the final two phases, which cover the southeasternmost portions of both Rancho Los Amigos and Downey. To maximize the financial return to the City, these specific plans should encourage uses that generate significant sales tax and other revenue for Downey. For example, light manufacturing and commercial sales produce more revenue than warehouse operations.

The final Rancho Specific Plan, to be completed during the 1990s, will include Downey's only exposure to Garfield Avenue, a major arterial travelled by 25,200 vehicles daily. The Phase IV Specific Plan should provide for uses that can take advantage of this important exposure.

### Firestone Boulevard

Nearly all of Firestone Boulevard is devoted to commercial or industrial uses. Downey's main artery, however, has several sub-areas with varying characters and economic vitality. The Stonewood Shopping Center specific plan addressed improvements to Firestone's most important economic feature. The City Council has authorized a specific plan to govern Firestone immediately south of Stonewood and at its intersection with Lakewood Boulevard. Market Profiles' review of this area showed that existing uses are incompatible with each other and with the character of Stonewood. Retail sales currently account for only one third of the building space in this area. Further, existing parcels ar irregular in shape and do not encourage development of the "Highest and best" commercial uses on this land.[4] The report revealed that this area alone could support nearly 400,000 square feet of retail commercial space. Assuming that the entire area were developed with commercial uses, which conservatively generate $250 per square foot per year when located adjacent to a major mall, the City's return in sales taxes could be $993,000 per year. Assuming a 4% rise in the consumer price index, this would amount to $13,387,000 over 10 years. These figures do not include the additional property tax revenue that would be created as properties change recycle and change ownership.[5]

A third specific plan will establish development regulations for the land on the south side of Firestone at the city's eastern gateway. The Downtown specific plan will address a fourth segment of the thoroughfare. Because Firestone Boulevard is home to so many of Downey's businesses, specific plans should be developed for other segments that respond to the unique factors of each, including accessibility, adjacent land uses, parcel size, and required infrastructure.

### Downtown

In 1990, a Blue Ribbon Committee completed an analysis of Downtown Downey and its potential and concluded that revitalization of the city's historic core was important to the community. The Committee recommended that new construction include entertainment, commercial, and office uses as well as new housing opportunities, especially for senior citizens. The Committee also recommended that Downtown's "sense of place' and pedestrian scale be enhanced and preserved.

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[4] Market Profiles Study, Tier 1. ppII-2 - II-4, III-1.

[5] Market Profiles Study, Tier 1. pVII-2.

Downtown has great potential for economic development. The Market Profiles Downtown Study documents significant demand in this area for the types of uses that the Blue Ribbon Committee envisioned.[6] The Downtown is the community's historic economic center—businesses have existed there since Downey's founding in 1873. Although populated with many uses at present, Downtown does not attract the significant numbers of people to work or to shop that other areas do. However, its pedestrian scale facilitates circulation from use to use and makes shared parking facilities a workable option for development. Further, the community has supported greater density and building height Downtown than elsewhere in the community. In addition, Downtown is close to the functions of the Civic Center, the Library, and the Downey Theater, and already has a major attraction in the Embassy Suites Hotel. Because of these special features and the identified demand, revitalization is an achievable goal. The economic return to the City from a Downtown revitalized with new revenue-producing uses is a major benefit of developing a specific plan that implements the Committee's suggestions.

Several constraints restrict Downtown Downey's economic development, including distance from freeways, access, convenience, visibility, and—as in other commercial areas of the city—irregular parcel patterns. The Market Profiles study, however recommended that new uses may profit from the patronage of nearby residents and Downtown office workers. Market research showed that 45% of Downtown shoppers questioned reported that they shop there daily or more than once a week.[7] The expansion of housing and office space Downtown would serve as a catalyst for further economic growth there.

The City owns many parcels Downtown, totalling over 26 acres or approximately 22% of the entire area.[8] These holdings should be reviewed and considered for possible economic development to spur further investment there. The City recently purchased the former Municipal Courthouse on Third Street between New Street and La Reina Avenue. This property and adjacent City-owned land presents an important economic opportunity and should be developed in a timely manner.

### Rockwell

The 184-acre Rockwell facility along Lakewood Boulevard is the largest area in the city occupied by a single use. Most of the site is currently owned by the federal government, and Rockwell is expected to occupy the land into the foreseeable future. The City of Downey, however, must prepare for a time when the land or part of it might be sold or converted to other uses. The Rockwell site would pose an unprecedented and unsurpassable economic opportunity. If the land ever becomes available, a specific plan should be prepared that promotes a range of land uses, including commercial, manufacturing, residential, and open space. Commercial, manufacturing, and mixed-use areas should be located and designed to ensure the greatest possible economic benefit to the community. This would include exposure to major arterials and intersections, large parcel sizes, and efficient circulation patterns.

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[6] Market Profiles Study, Tier 2, pII-10; Section V.

[7] Market Profiles Study, Tier 2. pV-3.

[8] Market Profiles Study, Tier 2. pII-16.

## V. REDEVELOPMENT

### Redevelopment and Economic Growth

In the competitive commercial market, redevelopment has become a major tool for many cities across California to maintain desired businesses and attract new revenue and job-producing firms. Redevelopment has been used less extensively in Downey than elsewhere in Southern California, although a number of commercial developments have resulted from Redevelopment activities since the Downey Community Development Commission was established in 1978. These projects include the Embassy Suites on Firestone Boulevard, Downey Acura, and smaller developments such as Los Amigos Plaza on Paramount Boulevard.

Redevelopment can nurture economic growth by offering incentives to businesses it wishes to attract or retain. The City may establish incentives for development of parcels in redevelopment project areas that it cannot arrange elsewhere. For example, through the Community Development Commission, the City may offer a business a rebate on its sales tax if it remains or in or moves to Downey. The City Council cannot use funds for this purpose when a property lies outside the boundaries of redevelopment areas.

In some areas, the City receives tax increment dollars for parcels in redevelopment areas. The Community Development Commission collect increased property tax revenue from new development and sales of existing properties over the life of a redevelopment plan—typically about 30 years. This money can then be used within the redevelopment area to purchase land or assist businesses with loans or other arrangements to encourage development.

The residents of Downey have urged the City to use its redevelopment authority judiciously. While some cities have included residential properties in redevelopment areas, the people of Downey have expressed repeatedly their belief that redevelopment need not be expanded into additional residential neighborhoods.

Because redevelopment is an extension of City activity, public education programs about redevelopment should be created. Communication about redevelopment and the possibilities it presents for Downey's economic growth should be readily available, and redevelopment activities should be well-publicized.

# LEGEND

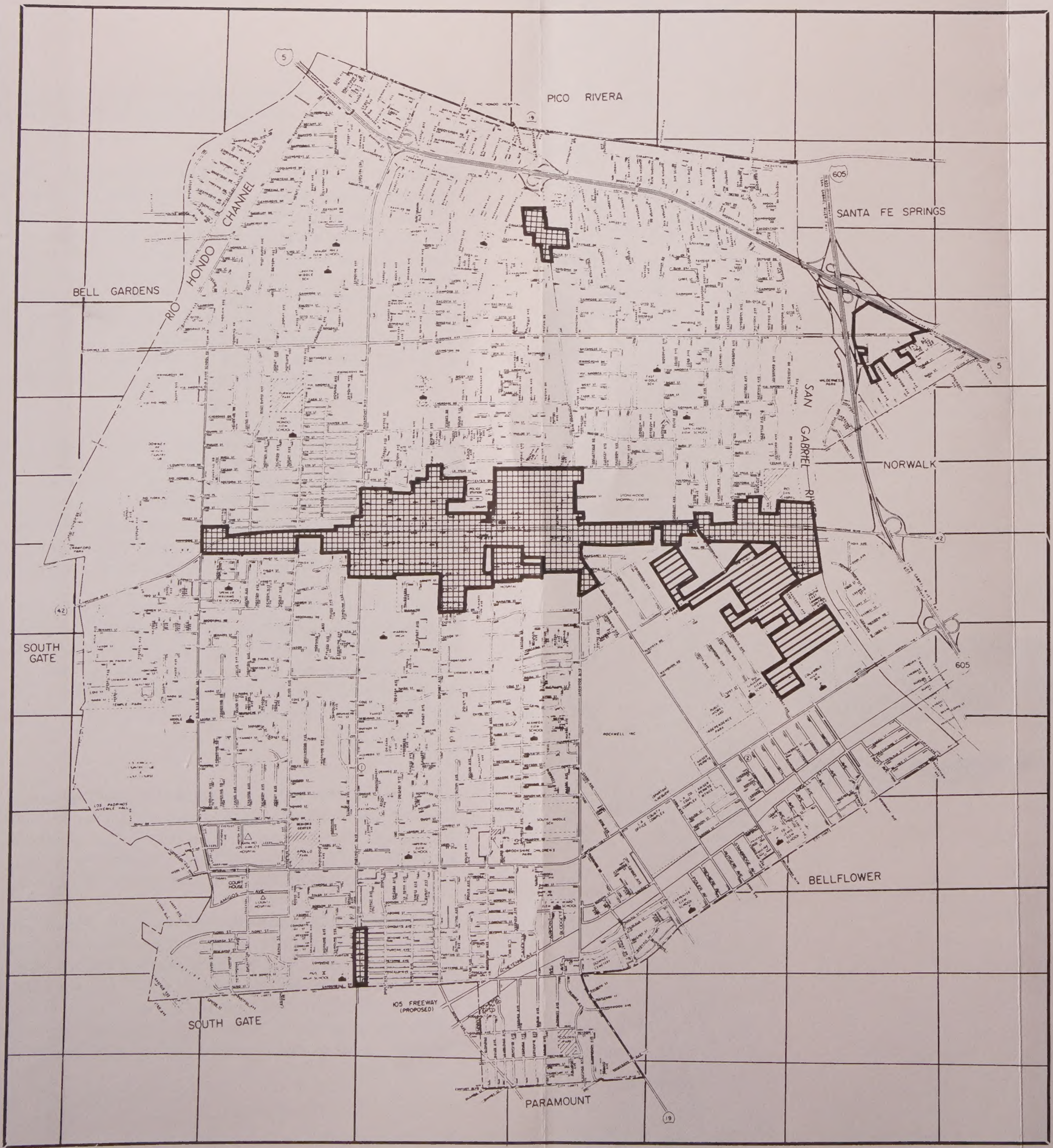
▦ EXISTING REDEVELOPMENT AREAS

☐ PROPOSED REDEVELOPMENT AREA (AREA 5B)

▨ WOODRUFF INDUSTRIAL PROJECT

ALL LOCATIONS ARE APPROXIMATE. FOR AREA DETAILS CONTACT DOWNEY PLANNING DIVISION

**SOURCE: City of Downey**


PICO RIVERA
SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
PARAMOUNT
105 FREEWAY (PROPOSED)
ROCKWELL INC.
5
605
42
19

# REDEVELOPMENT AREAS

## EXHIBIT IX-2

## ECONOMIC DEVELOPMENT

Not to scale.

## DOWNEY GENERAL PLAN

*Vision* 2010

## VI. CORRIDOR DEVELOPMENT AND "STRIP" COMMERCIAL CENTERS

Commerce in Downey developed along the major streets that cross it: north-south arterials Paramount Boulevard, Downey Avenue, Lakewood Boulevard, and Woodruff Avenue and east-west streets Telegraph Road, Florence Avenue, Firestone Boulevard, and Imperial Highway. For most of the community's history, the areas between these major streets were agricultural, and these thoroughfares and their major intersections were the logical economic choice for businesses. In time, much of the agricultural land was developed with residential uses, and development of commercial uses along major streets intensified. Arterials exposed businesses to tens of thousands of motorists entering, leaving, or travelling through the city. Smaller, independent businesses as well as large retailers desired such exposure, which remains very effective. Development along arterials also served adjacent neighborhoods and in many cases served as a buffer between the noise of a busy street and a quiet residential neighborhood.

### The Importance of Corridors

Strategies should be developed for the overall economic development of each corridor. Firestone Boulevard is the major corridor in the city, and future economic development there will likely be encouraged by the various specific plans that are anticipated to include most of it. Imperial Highway, Telegraph Avenue, Lakewood Boulevard, and Paramount Boulevard are also extremely important, and economic development strategies should be developed for each corridor in its entirety. These will differ based on the types of uses now prevalent along each arterial, the degree of exposure along each, accessibility, and the types of adjacent land uses.

Corridor commercial in Downey has not been planned comprehensively. Given the competitive retail market and modern developers' demands for land area, it is unrealistic to assume that *all* commercial corridor segments will increase their prosperity. It will be more profitable to direct the City's economic development efforts toward selected corridors with the greatest growth potential. An overall economic strategy for commercial development would include a general prioritization of corridor segments and discussion of the types of businesses that the City would prefer in each segment.

### Commercial Centers

Because of Downey's suburban character and its heavy dependence on the automobile, many "strip" commercial centers were arrayed over time along the city's major streets. These typically have been one-story clusters of small businesses built in a row, with occasionally one or two larger stores or "anchors". Most are set back considerably from the street to accommodate parking in front. Deliveries are made in the rear or directly from the parking lot.

Strip centers have evolved since their introduction. For example, landscaping standards have been strengthened over time. Early centers were often not required to include trees in their parking lots and today appear less established or less integrated into the surrounding community than newer centers with landscaping that has matured. Architectural standards have improved, and the City has established sign criteria so that each center has a unified appearance. Two-story centers have appeared. Architectural embellishment and stronger landscaping standards have proved good for business, creating an environment where people desire to shop. Another change, one which intensified in the 1980s, has been construction of centers on smaller parcels. Several corner parcels that were once occupied by service stations have been developed with small commercial centers, sometimes called "mini-malls", because of their excellent exposure at intersections.

Defining "strip commercial centers" or "mini-malls" is difficult. Some are extremely successful while others have a high turnover of tenants or are unpopular with neighbors. In some centers, traffic and arrangement of parking spaces are criticized. In others, these features are barely noticed. Some are considered attractive additions of convenience to the community while others have long been considered eyesores. Most generalizations about a center's size, age, or location often have their counterarguments elsewhere within the city. Properties occupied by strip centers are important to Downey's stock of commercial land as well as to its sales tax base. Success relies heavily on a center's location, its mix of tenants, and its design.

Unfortunately for the purposes of economic development, however, strip centers have dispersed the community's commercial core. Many smaller businesses would prefer to locate along Lakewood Boulevard, for example, with 42,000 vehicles passing daily, than in Downtown Downey. In addition, some segments of arterial roadway have proven to be more successful business locations than others—for example nearly all of the Firestone Boulevard, and Imperial Highway between Lakewood and Paramount. Other corridor segments have become home to less-profitable and occasionally unattractive uses, which sometimes unfairly affect perceptions of the surrounding neighborhoods.

The economic development strategy for each corridor should include physical development standards for strip centers. These will ensure centers that are desired by the business community, acceptable to Downey residents, and attractive to consumers. Such standards would include design guidelines, minimum lot areas, parking requirements, and sign regulations.

Some uses primarily serve the surrounding neighborhood rather than customers from all over the city. These include dry cleaners, barbers and beauty salons, convenience markets, donut and ice cream shops, video rental stores, sandwich shops, photo processing, etc. Economic development for corridors and strip commercial centers might encourage these and similar uses to locate in neighborhood "nodes". Each node, often centered on a major intersection would become a focus of neighborhood or convenience shopping, concentrating commercial uses in one area rather than having them spread out along a street. The intersection of Stewart & Gray Road and Old River School Road might be one such node. The intersection of Gallatin Road and Lakewood Boulevard would be another.

Corner properties and adjacent parcels, of course, often have different owners. If neighborhood nodes are to establish a sense of place for sub-areas of Downey, there should be some continuity wherever possible between the design of developments on different parcels. Such design "links" could be established through specific plans or through general development standards and sign requirements applied to strip commercial development throughout Downey.

## VII. ASSESSMENTS

Every development has some impact on the surrounding community and its infrastructure. Every new business will attract customers and employees, who place additional burdens on the street network which, with multiple developments over time, will require more maintenance. In addition, every development taps the city's water resources, and new developments require Police and Fire protection. Providing the necessary infrastructure and services for new development is increasingly beyond the means of local governments. Many municipalities require new developments to pay part or all of required improvement costs. Too many fees, however, may discourage new development in a city. Further, the impact of one development may not trigger the need for new improvements, but the impact of several developments in the same area might. The question remains as to how needed improvements can be constructed without undue financial hardship to the City or to the developer.

Benefit assessment districts can be one solution. Developers and businesses in such districts pay fees that go to a specific improvement from which they will benefit. For example, in an area where expanding businesses increase the demand for parking, a parking assessment district might be created to fund construction of a parking structure to serve several businesses. Developers of new projects (and perhaps existing businesses that would also benefit) would be assessed a fee based on the degree to which they would benefit from the structure.

Parking assessment districts have existed in Downtown Downey for many years. The concept could be expanded to include other commercial and industrial areas of the city as well. In a parking assessment district, the City benefits because required off-street parking is provided. The businesses and landowners benefit because the parking established under the district may allow them to develop larger areas of their property or to establish uses that require a number of parking spaces that their parcels could not individually support. An example of this would be an entrepreneur who wished to open an independent restaurant or bistro Downtown, but whose small parcel could not accommodate the large number of parking spaces that restaurants require. A parking assessment or assessment district could provide the funds to pay for parking improvements on an adjacent or nearby site. parking assessment districts can provide and additional incentive for developers to initiate projects. Because 70% to 80% of typical developments—and 30% of development costs—are consumed by parking and circulation areas, City-constructed parking substantially reduces the amount that developers must spend on both land and construction.[9]

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[9] Market Profiles Study, Tier 1, ppVIII-8 - VIII-10.

Needed infrastructure may also be funded through Mello-Roos districts. In a Mello-Roos district, property owners are assessed an equal fee for a specified number of years to fund construction—and sometimes even operation—of a specific improvement within that district. Mello-Roos districts are established by a majority vote of residents within a proposed district, or the majority of property owners if fewer than 12 properties are involved. Mello-Roos districts are an attractive method of funding improvements needed to support developments on land with one or a handful of property owners.

a:econdev

# DOWNEY
# GENERAL PLAN

# HAZARDOUS WASTE MANAGEMENT CHAPTER

# HAZARDOUS WASTE MANAGEMENT CHAPTER

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# HAZARDOUS WASTE MANAGEMENT

## Introduction

The State Department of Health Services has approved the Los Angeles County Hazardous Waste Management Plan (CoHWMP). Cities are required, in turn, to 1) incorporate the CoHWMP into their respective general plans by reference, 2) adopt their own plans consistent with the County Plan or 3) adopt an ordinance requiring land use approvals to be consistent with the County Plan.

The City of Downey has elected to incorporate the County Plan into its Hazardous Waste Management Chapter of the General Plan, with modifications. The General Plan is a way to guide the development of off-site and on-site hazardous waste management facilities, project and programs in an orderly fashion. Adoption of a hazardous waste management element as part of the general plan will establish the policies and develop the programs which will tailor the County Plan to fit the needs of the City of Downey relating to Hazardous Waste Management.

## HAZARDOUS WASTE MANAGEMENT ISSUES

### Issue One

Due to limited resources, and the high cost of disposal, many small commercial hazardous waste generators, such as dry cleaners and photo processors, face difficult hazardous waste management problems.

### Issue Two

Downey is predominantly a residential community. Many commonly used household materials, such as garden pesticides, flashlight batteries, fingernail polish removers and paint, have hazardous properties and become hazardous waste when discarded.

### Issue Three

The safe transport of hazardous materials through the City is a major concern to Downey residents and businesses. Downey has three freeways, a fourth one under construction, two rail lines and four major arterials.

### Issue Four

Inactive and/or existing contaminated hazardous waste sites may pose a serious threat to the environment as well as to the health of Downey citizens. Problems include incompatible surrounding uses, potential risks to nearby residents and businesses and the contamination of natural resources.

### Issue Five

Special criteria, conditions and regulations must be adopted to promote safe on-site hazardous waste recycling and treatment.

### Issue Six

Downey has Federal, State and County facilities within its boundaries that potentially store and use hazardous materials. These operators have been reluctant to disclose materials and operations.

## GOALS, ISSUES, POLICIES AND PROGRAMS

The following goals, policies and programs have been developed to address hazardous waste issues in the City of Downey.

Goals

Assist small quantity hazardous waste generators to meet their responsibility to properly treat and dispose of hazardous waste.

Eliminate improper disposal of residential hazardous waste.

Minimize the chance of accidents/risks related to the transportation of hazardous waste through the City.

Ensure that those responsible should inventory, control and clean-up all existing contaminated hazardous waste sites.

Ensure that on-site treatment of hazardous waste is safe through proper siting and operational standards.

Monitor and inspect generators of hazardous waste in the City of Downey to ensure compliance with emergency planning and safety requirements.

- **Issue One**

Due to limited resources, the high cost of disposal and inaccessibility to information, many small quantity commercial hazardous waste generators, such as dry cleaners and photo processors, face difficult and expensive hazardous waste management problems.

Policy

10.1.1 The City shall sponsor and assist in education and training efforts such as workshops and private industry training in waste reduction disposal.

Programs

The City shall:

10.1.1.1 Co-sponsor, with Los Angeles County, collection and disposal services for small quantity generators. This will include a convenient collection/transfer location for small quantity generators. This will also include a triennial "drop-off" to be run by a licensed handler/servicer and coordinated by the Fire and Public Works Departments.

10.1.1.2 Provide education/information programs and workshops for the public and industries to increase awareness of industry options for safe disposal and waste minimization. Topics covered will include recent technology and examples of what other industries are doing.

- **Issue Two**

Downey is predominantly a residential community. Many commonly used household materials, such as garden pesticides and paint, become hazardous waste when improperly discarded.

Policy

10.2.1 The City shall establish a Residential Hazardous Waste Management Program by identifying and developing techniques for the collection and disposal of household hazardous wastes.

10.2.2 The City shall promote public information on hazardous waste.

Programs

The City shall:

10.2.1.1 Sponsor, in conjunction with the County Sanitation District, household pick-up days. This will be advertised in local newspapers and utility billings.

10.2.2.1 Designate the City newletter, The Communicator, a central resource/information system for the dissemination of accurate disposal information, education on waste minimization, and other waste management practices.

10.2.2.2 Supply, through the City Public Information Office, an informative handout on residential hazardous waste. This handout will be available at City facilities.

10.2.2.3 Promote education through articles in the City newsletter, the cable channel and through the Keep Downey Beautiful program. The City will also sponsor public speaker programs.

- **Issue Three**

The safe transport of hazardous materials and hazardous waste through the City is a major concern to Downey residents and businesses. Downey has three freeways and a fourth under construction, two rail lines and four major arterials.

Policies

10.3.1 The City shall require existing businesses that transport hazardous waste to develop routing plans.

10.3.2 The City shall limit hazardous waste transportation on city streets to major streets and during non-peak hours.

Programs

The City shall:

10.3.1.1 Require businesses having reportable quantities of hazardous materials, to obtain approval from the City Public Works Department for a routing plan for hazardous waste transportation as part of the land use approval/CEQA process.

10.3.2.1 The Downey Police Department shall strictly enforce all applicable regulations regarding transport of hazardous waste.

10.3.2.2 The Downey Fire Department shall continue its extensive emergency response plan in coordination with the Downey Police, Public Works Department and California Highway Patrol.

10.3.2.3 Support the efforts of the California Public Utilities Commission to subject rail transportation to a duty to report hazardous material shipments and releases to local emergency response agencies.

- **Issue Four**

Inactive and/or existing contaminated hazardous waste sites may pose a serious threat to the environment as well as to the health of Downey citizens. Problems include potential risks to nearby residents and businesses and contamination of natural resources.

Policies

10.4.1 The City shall inventory, control and clean-up all existing contaminated hazardous waste sites.

10.4.2 The inventory should provide location, type of facility, type and amount of hazardous waste danger to the public and danger to natural resources.

10.4.3 The City should adopt land use policies for the clean-up of contaminated sites prior to development.

Programs

The City shall:

10.4.1.1 Obtain annually from the State Department of Health Services listings of contaminated sites;

10.4.2.1 Require that clean-up of sites be consistent with the National Contingency Plan, that provides procedures and standards for action at hazardous waste sites;

10.4.2.2 Update the inventory annually.

- **Issue Five**

Special criteria, conditions and regulations must be adopted to promote safe on-site hazardous waste recycling and treatment.

Policies

10.5.1 The City shall implement Federal and State legislation regarding hazardous waste treatment facilities.

10.5.2 The City shall increase public education and involvement in the siting and permitting process for on-site hazardous waste recycling and treatment facilities.

Programs

The City shall:

10.5.1.1 Adopt a code amendment for siting criteria for hazardous waste facilities to include criteria for the following:

1) buffer zones and setbacks;
2) flood areas;
3) seismic activity;
4) soils;
5) performance standards;
6) restricted locations in areas of possible water contamination;
7) locate away from wells;
8) traffic impacts and transportation routes;
9) an Initial Environmental Study to determine adverse environmental effects;
10) site operations;
11) visual, noise and olfactory impacts;
12) air quality;
13) endangered species;
14) risk assessment.

10.5.1.2 Require as part of an application for a land use approval:
1) risk assessments paid for by the applicant but conducted by an independent party examining the type of wastes and design features of the facility;
2) transportation impacts.

10.5.2.1. Require a Conditional Use Permit for all new users, as of August 14, 1990, of reportable amounts of hazardous materials.

- **Issue Six**

Federal, State and County facilities within Downey store and use hazardous materials.

Policies

10.6.1 To the extent of its legal authority, Downey will require all Federal, State and County facilities, within its jurisdictional boundaries, which generate hazardous wastes, to comply with all applicable regulations.

10.6.2 The City shall require all Federal, State and County facilities to disclose hazardous materials storage and waste disposal quantities.

Programs

The City shall:

10.6.1.1 Require the Downey Fire Department to annually contact all government facilities, notifying them of City hazardous waste requirements. Information obtained will be forwarded to the Public Works Department. The DFD will work with the City Attorney to insure that all appropriate legal steps are taken to obtain compliance, and in appropriate cases, to prosecute those not in compliance.

10.6.1.2 Cooperate with Los Angeles County to sponsor legislation requiring other government agencies to comply with hazardous materials regulations.

10.6.2.1 Enforce applicable laws against facilities which do not comply with the policies and programs outlined in this Chapter, including all Federal, State and County facilities.

## BACKGROUND

Many businesses in Downey utilize or manufacture products which are considered hazardous. Hazardous wastes are wastes which are designated as hazardous, or which have characteristics of ignitability, corrosivity, reactivity or toxicity. The U. S. Environmental Protection Agency, the State Department of Health Services, the South Coast Air Quality Management District and the Regional Water Quality Control Board, among other agencies, regulate the generation of hazardous wastes, air toxics and contaminated wastewater.

- **Small quantity generators**

A recent survey performed by the California Waste Management Board concludes that 57% of the small quantity hazardous waste generators (i.e., those which produce less than 1000 kg/mo of hazardous waste) either stored their hazardous waste illegally or dumped them illegally into sewers or landfills. Agencies believe that these wastes are dumped illegally because it is expensive to dispose of the waste correctly and because hazardous waste regulations are complex, extensive and constantly changing.

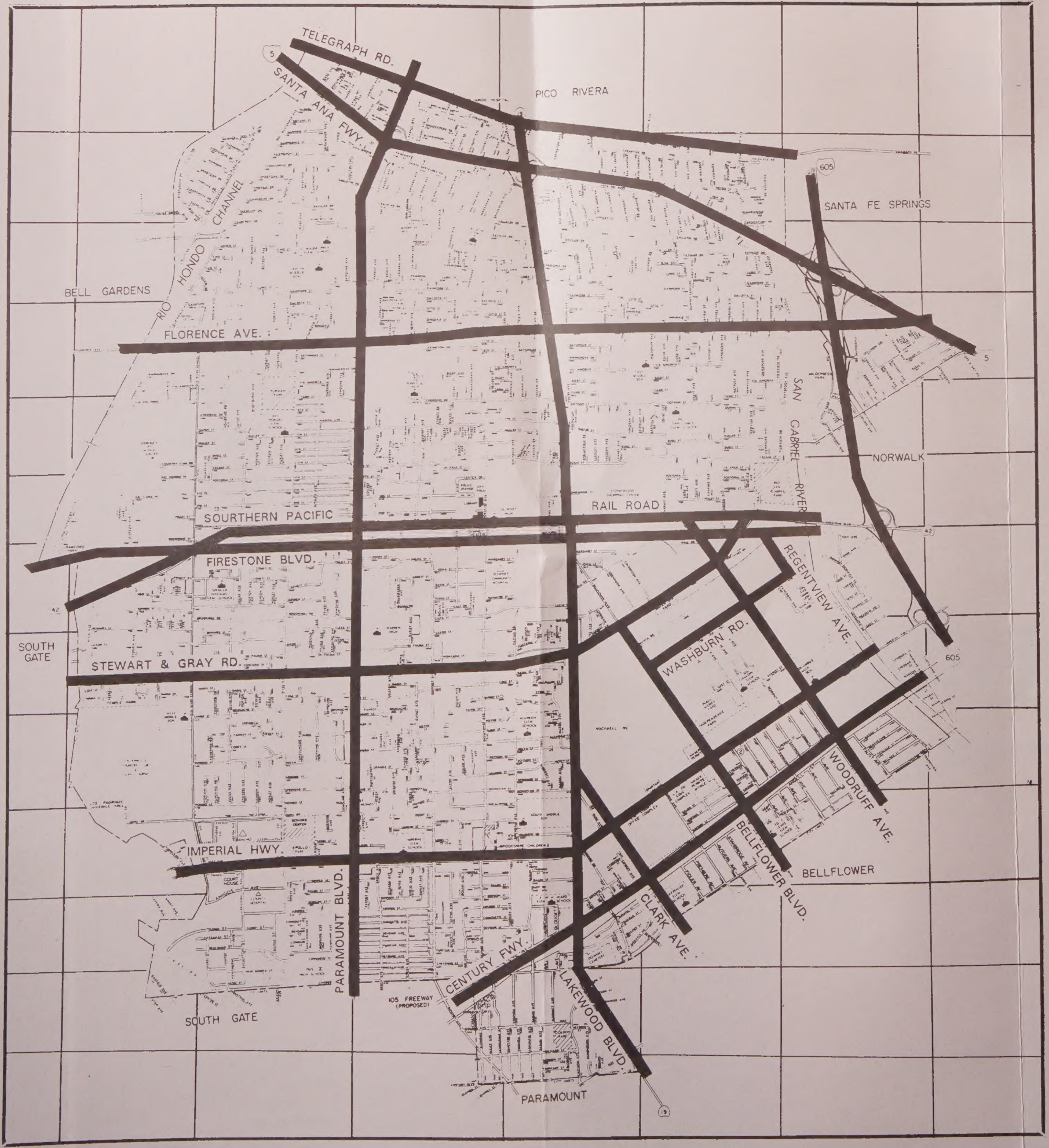
Many of Downey's businesses are considered small quantity generators of hazardous waste. The Downey Fire Department ("DFD") maintains records of the amount and type of most hazardous chemicals stored at any one location, as well as the adequacy of fire protection. Currently, the DFD requires all businesses to submit disclosure forms reporting hazardous materials handled above minimum reportable quantity thresholds set by state and federal regulations. Reportable amounts are more than 55 gallons or 200 cubic feet or 500 pounds of any one hazardous material annually. Reports of the amount and type of hazardous waste generated is also required.

A Business Emergency Plan is required if the business handles reportable amounts of hazardous materials. The emergency plan outlines notification procedures, evacuation techniques, mitigation measures for spills, abatement of clean up, and prevention. The business has 30 days to submit the emergency plan. Failure to submit the plan may result in prosecution. Follow-up inspections for compliance are required.

A Risk Management Prevention Plan (RMPP) is also required for businesses handling acutely hazardous materials. However, the RMPP program is limited to reporting and planning requirements. It does not provide any type of information program or collection facility to assist in the proper disposal of hazardous waste for small quantity generators.

## LEGEND

▬ HAZARDOUS WASTE TRANSPORTATION ROUTES


TELEGRAPH RD.
5
SANTA ANA FWY.
PICO RIVERA
605
SANTA FE SPRINGS
RIO HONDO CHANNEL
BELL GARDENS
FLORENCE AVE.
5
SAN GABRIEL RIVER
NORWALK
SOUTHERN PACIFIC
RAIL ROAD
42
FIRESTONE BLVD.
REGENTVIEW AVE.
42
SOUTH GATE
605
STEWART & GRAY RD.
WASHBURN RD.
WOODRUFF AVE.
IMPERIAL HWY.
BELLFLOWER BLVD.
BELLFLOWER
CLARK AVE.
CENTURY FWY.
PARAMOUNT BLVD.
105 FREEWAY (PROPOSED)
LAKEWOOD BLVD
SOUTH GATE
PARAMOUNT
19

**SOURCE: City of Downey**

# HAZARDOUS WASTE TRANSPORTATION ROUTES

## EXHIBIT X-1

## HAZARDOUS WASTE MANAGEMENT CHAPTER

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

# EXISTING CONTAMINATED SITES

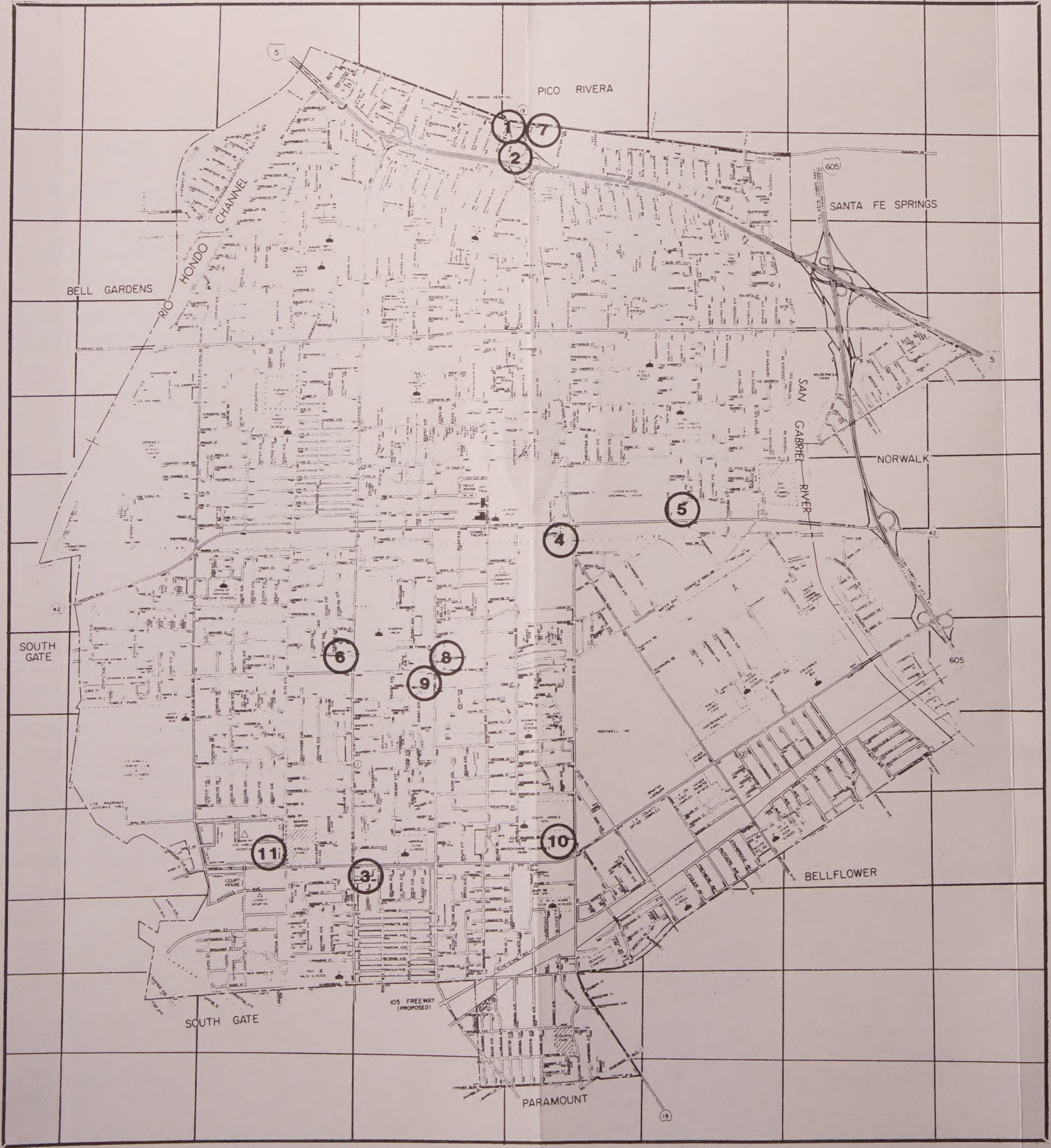
# EXHIBIT X-2

## HAZARDOUS WASTE MANAGEMENT CHAPTER

## LEGEND

| No. | Site<br>Location<br>Problem |
|---|---|
| 1 | SHELL SERVICE STATION<br>8801 LAKEWOOD BLVD.<br>TANK LEAK |
| 2 | THRIFTY STATION #143<br>8863 LAKEWOOD BLVD.<br>TANK LEAK |
| 3 | THRIFTY STATION #0271<br>8010 IMPERIAL HWY. E.<br>TANK LEAK |
| 4 | VACANT LOT<br>(FORMER DRY CLEANER)<br>8845 FIRESTONE BLVD.<br>TANK LEAK |
| 5 | SHELL STATION<br>9305 FIRESTONE BLVD.<br>TANK LEAK |
| 6 | MOBIL STATION #11-MKK<br>11861 PARAMOUNT BLVD<br>TANK LEAK |
| 7 | MOBIL STATION #11-ENN<br>9000 TELEGRAPH ROAD<br>TANK LEAK |
| 8 | ARCO STATION<br>11846 DOWNEY AVENUE<br>TANK LEAK |
| 9 | SHELL STATION<br>11853 DOWNEY AVENUE<br>TANK LEAK |
| 10 | SHELL STATION<br>9090 IMPERIAL HIGHWAY<br>TANK LEAK |
| 11 | RANCHO LOS AMIGOS<br>HOSPITAL<br>7601 IMPERIAL HWY<br>TANK LEAK |

SOURCE: City of Downey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SANTA FE SPRINGS
BELL GARDENS
RIO HONDO CHANNEL
SAN GABRIEL RIVER
NORWALK
SOUTH GATE
BELLFLOWER
SOUTH GATE
105 FREEWAY (PROPOSED)
PARAMOUNT
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605
42
19
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7
2
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Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

- **Residential hazardous waste**

Residential hazardous waste is also part of the hazardous waste problem. Many household products such as cleaners, pesticides, paints and varnishes, nailpolish remover, batteries, motor oil and antifreeze are subject to hazardous waste laws and must be disposed of properly.

- Hazardous Household Waste Pickup and Collection Points/Dates

Management alternatives for residential hazardous waste include reduction, recycling and treatment. Currently, there is no statewide program for the recycling and treatment of residential hazardous waste.

- **Transport of hazardous materials.**

It is the responsibility of local government to establish safe routing and scheduling of transport for hazardous waste on local streets (see Exhibit 1). The goal of this plan is to minimize the distance that must be traveled in order to prevent accidents and illegal disposal that may require emergency response. A Conditional Use Permit is required for those users of reportable amounts of hazardous materials to assure that their waste is located and stored where handlers have easy and safe access to it.

There are four major fuel lines located under major rights-of-way throughout the City. Although pipeline transport is the safest method for shipping petroleum, pipeline failures may occur. Downey must report any release of a pollutant that could enter the ground or surface water. The Flood Control District provides access to, and assists in the tracing, containment and removal of water pollutants in the system.

The Downey Police Department and Fire Department maintain a list of agencies to be called in the event of a hazardous spill and make those calls in an emergency. Agencies which must be notified in the event of a release of hazardous waste include the California Department of Fish and Game, the Environmental Protection Agency, the Regional Water Quality Control Board,the State Department of Health Services, the Los Angeles County Department of Health, the County Board of Supervisors, the California Division of Oil and Gas, the State Office of Emergency Services, the Los Angeles County Flood Control District and the County Engineer.

- **Contaminated sites**

Pursuant to Government Code Section 65962.5, the Governor's Office of Planning and Research has prepared and distributed a Hazardous Waste Substances List for each city. Downey's list includes eleven sites identified as having tank leaks. Sites on the list are primarily automobile service stations, but also include a dry cleaner and a hospital (see Exhibits 2 and 3).

### Siting criteria for on-site facilities

The County Hazardous Waste Management Plan outlines criteria for the siting of off-site hazardous waste management facilities, but does not address siting criteria for on-site facilities. Downey should adopt a hazardous waste facility siting ordinance which applies to both on- and off-site hazardous waste facilities. Several state laws already prohibit certain type of hazardous waste facilities from locating within specified distances from residential areas, school sites and areas of geologic hazard. The criteria for both on-site and off-site hazardous waste facilities should consider the circumstances unique to Downey.

Downey's policies and programs should also take into account factors such as the designated flood areas of the City, specific transportation routes to mitigate residential and business impacts, and risk assessments prior to discretionary land use approvals.

### Jurisdictional boundaries

Federal, State and County facilities have been reluctant to disclose hazardous materials they handle or from which they generate waste. Emergency response and environmental protection are dependent upon those accurate disclosures.

## APPENDIX A

If the following uses have reportable amounts of hazardous materials, they will be required to obtain a Conditional Use Permit.

### Commercial Zones

Medical and dental offices
Swimming Clubs
Dry Cleaners
Blueprinting services
Hospitals
Photo engraving
Swimming pool services
Taxidermists

Any other uses that have reportable quantities of hazardous materials.

### M-1 Zone

Dental Laboratories
Film Laboratories
Experimental, research and testing laboratories
Automobile repair and maintenance garages
Automatic screw machines
Creameries & ice cream manufacture
Ice manufacture, distribution & storage
Machinery repairs
Metal fabrication
Paint spray booths
Pest control services
Public utility service yards
Assembly plants
Furniture manufacture & assembly
Machine shops
Mechanical rides
Truck terminals
Any other uses that have reportable quantities of hazardous materials.

## M-2 Zone

All uses required to have CUP in M-1
Battery Manufacture
Engine Manufacture, except foundries
Tire retreading
Tool manufacture
Trailer manufacture
Cesspool pumping, cleaning and draining
Foundries, aluminum
Rubber processing
Soft drink manufacture and bottling
Truck garages
Cement bulk storage silos

Any other uses that have reportable quantities of hazardous materials.

## H-M Zone

Hospitals
Laboratories, dental & medical
Medical & dental offices

Any other uses that have reportable quantities of hazardous materials.

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**contaminated hazardous waste site**

Sites which include leaking tanks or other improperly disposed hazardous waste which effect the site environment. (Los Angeles County Hazardous Waste Management Plan, Chapter 11)

**hazardous waste facility**

All contiguous land, structures, other appurtances, and improvements on the land, used for handling, treating, storing or disposing of hazardous wastes. (22 CCR Section 66096)

**inactive hazardous waste site**

Sites which are no longer accepting waste. These sites are either secured, abandoned or closed. Secured sites are closed according to Federal or State regulation and are considered not to pose a threat to public health. Abandoned sites are sites whose owners cannot be located, sites whose owners do not have funds to be responsible for clean-up or locations where hazardous waste has been illegally disposed. (Los Angeles County Hazardous Waste Management Plan, Chapter 11)

**large quantity generator**

Existing California regulations do not define large quantity generators. However, this element is consistent with the Los Angeles County Hazardous Waste Management Plan which defines a large quantity generator as one who generates over 1,000 kilograms (2,200 pounds) or more of hazardous waste per month. Downey defines large quantity generators as those handlers have more than 55 gallons, or 200 cubic feet or 500 pounds of any one hazardous material at a time.

**off-site hazardous waste treatment facility**

Operation involving the handling, treatment, storage or disposal of a hazardous waste in one or more of the following situations:

1. The hazardous waste is transported via commercial railroad, a public owned road or public waters, where adjacent land is not owned or leased to, the producer of the waste.

2. The hazardous waste is at a site which is not owned by, or leased to, the producer of the waste.

3. The hazardous waste is at a site which receives hazardous waste from more than one producer. (Health and Safety Code, Title 2, Chapter 30, Article 1)

**on-site hazardous waste treatment facility**

Operation involving handling, treatment, storage or disposal of hazardous waste on land owned by, or leased to, a waste producer, and which receives hazardous waste produced only by that producer. An operation that occurs after waste is transported by commercial railroad, or on public waters or on a public road shall be considered an on-site operation only if the producer of the waste owns at least 90% of the linear site and the area where the hazardous wastes are generated are on the same continuous property. (Health and Safety Code, Chapter 30, Article 1)

**recycle**

To redirect or utilize a hazardous waste or a substance from a hazardous waste. This includes recovery of resources from a hazardous waste. (Health and Safety Code, Section 25121)

**small quantity generator**

Existing California regulations do not define small quantity hazardous waste generators. However, this element is consistent with federal law and the Los Angeles County Hazardous Waste Management Plan which defines a small quantity generator as one who generates 1,000 kilograms (2,200 pounds) or less of hazardous waste per month. Downey defines small quantity generators (SOG's) without regard to the quantity of hazardous waste produced, but in terms of hazardous materials on hand. SOG's are those having less than 55 gallons, or 200 cubic feet or 500 pounds of any one hazardous material at a time.

**treatment**

Any method, technique, or process designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize, recover energy or material resources, reduce in volume and render such waste less hazardous so that it is safer to transport, store or dispose of. (22 CCR Section 66216)

**waste minimization**

Reduction of waste at the source; on-site reuse, recycling or treatment; or off-site recycling. (Los Angeles County Hazardous Waste Management Plan, Chapter 7)

a:hazmat

# Vision 2010

FOUNDED 1873
INCORPORATED 1956
FUTURE UNLIMITED

**FINAL EIR**

# DOWNEY GENERAL PLAN

## ENVIRONMENTAL IMPACT REPORT

## ENVIRONMENTAL IMPACT REPORT

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## ENVIRONMENTAL IMPACT REPORT
## DOWNEY COMPREHENSIVE GENERAL PLAN UPDATE

### INTRODUCTION

This environmental impact report (EIR) is a section of the Downey Comprehensive General Plan Update (CEQA, Section 15166). It analyzes the potential impacts that may result from the implementation of the Downey General Plan. The EIR compares the impacts of existing land use and existing zoning to the potential impacts associated with long-range implementation of the General Plan.

The EIR is an information document for use by decision makers, public agencies, and the general public. It is not a policy document which sets forth the City policy. It is intended to provide information to public agencies and the general public regarding the potential environmental impacts related to implementation of the Downey General Plan. Under the provisions of the California Environmental Quality Act (CEQA):

> The purpose of an environmental impact report is to identify the significant effects of a project on the environment, ... and to indicate the manner in which significant effects can be mitigated or avoided."

The City of Downey is the Lead Agency for the project. Preparation of the EIR is in accord with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code, Section 21000 et. seq.) and the California Environmental Quality Act Guidelines, as amended in 1986. The overall format of the EIR contains the components required by CEQA.

## SUMMARY

### Project Location and Characteristics

The City of Downey is located approximately 12 miles southeast of Los Angeles Civic Center, in Los Angeles County. It is 12.8 square miles of relatively flat terrain.

The project involves the update of each chapter of the Downey General Plan. The Plan was last updated in 1973. The following chapters are included in the Plan:

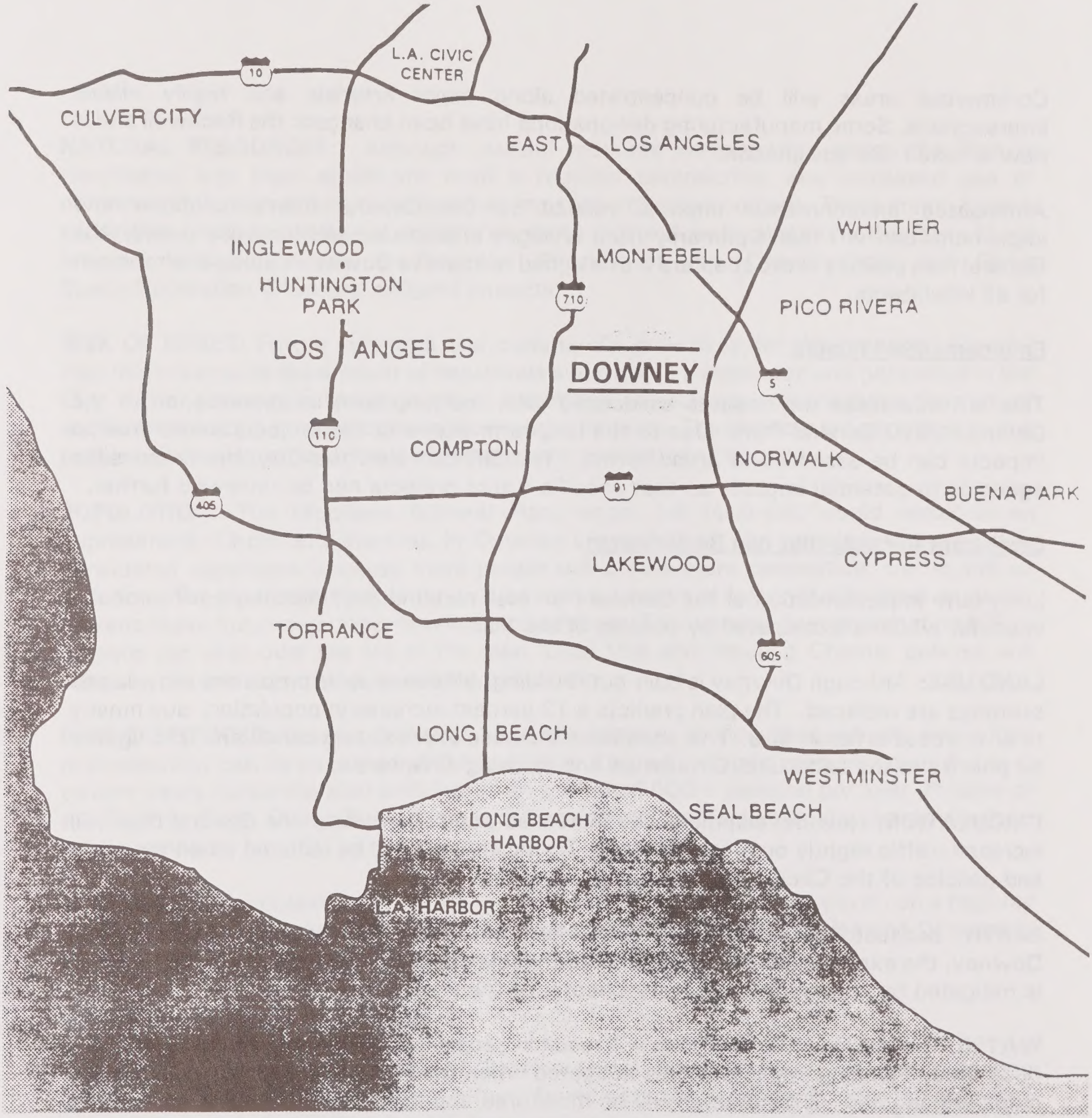
Land Use
Circulation
*Housing
*Conservation
*Safety
*Noise
*Open Space
Design
Economic Development
*Hazardous Waste Management[1]

Downey is a mature community. It's greatest period of growth was during the 1950's. There is very little vacant land in the city. Development results from recycling as buildings age. The General Plan guides Downey, a mature community, with aging infrastructure, through the next twenty years, into a new century.

The Environmental Impact Report is an overall view of the city now and in the future. It is not project specific. There is no way to predict what specific development will occur. Based on present trends, it can be anticipated what might occur. The General Plan makes few land use changes. There are no proposed changes in residential densities. Some multi-family designated areas have been designated for other development; however, all low density areas will remain. Floor-Area Ratios (FAR's) are proposed for commercial and industrial areas. Floor area ratio, the ratio of building floor area to the total building site, is used to determine "ultimate build-out" or building intensity. There are minor redesignations in other land use areas. Development standards will be reviewed and changed.

---

[1] * These chapters have been adopted; Those not starred will be reviewed by the Planning Commission December 18, 1991. An Air Quality Chapter will be prepared in 1992, therefore Air Quality mitigations are not discussed in this EIR.


L.A. CIVIC CENTER
10
CULVER CITY
EAST LOS ANGELES
WHITTIER
INGLEWOOD
MONTEBELLO
HUNTINGTON PARK
710
PICO RIVERA
LOS ANGELES
DOWNEY
5
110
COMPTON
NORWALK
91
BUENA PARK
405
LAKEWOOD
CYPRESS
TORRANCE
605
LONG BEACH
WESTMINSTER
SEAL BEACH
LONG BEACH HARBOR
L.A. HARBOR

# EXHIBIT EIR-1
# REGIONAL LOCATION
## DOWNEY GENERAL PLAN

Vision 2010

Commercial areas will be concentrated along major arterials and highly visible intersections. Some manufacturing designations have been changed: the Rockwell site is now a mixed use designation.

Anticipated environmental impacts related to the General Plan's adoption and implementation will result primarily from changes in land use and land use policy. The General Plan policies in the chapters are designed to improve Downey's living environment for all inhabitants.

### Environmental Impacts

This EIR addresses the impacts associated with the long-term implementation of the Downey 2010 General Plan. Due to the long-term scope of the project, environmental impacts can be assessed in broad terms. The EIR can alert the City and responsible agencies to potential impacts so that specific future projects can be reviewed further.

### Significant Impacts that can Be Mitigated

Long-term implementation of the General Plan may result in the following environmental impacts, which are mitigated by policies of the Plan.

**LAND USE:** Although Downey is built-out, building will continue as properties recycle and buildings are replaced. The plan predicts a 13 percent increase in population, due mostly to an increase in family size. This population increase over existing conditions is mitigated by policies in the Land Use, Circulation and Housing Chapters.

**CIRCULATION:** New development and increased population under the General Plan will increase traffic slightly on area roadways. Traffic impacts will be reduced when the goals and policies of the Circulation Element are implemented.

**EARTH:** Because the proposed General Plan could result in more people residing in Downey, the exposure of more people to earthquake hazards is considered an impact that is mitigated by policies in the Safety Chapter of the Plan.

**WATER:** The proposed General Plan will result in people living and working within a City's flood area. Flooding impacts will be mitigated when the FEMA National Flood Insurance maps are adopted. Groundwater will be monitored and land use classes that contribute to groundwater contamination will be discouraged. Policies of the Safety, Hazardous Waste Management, Conservation and Open Space/Recreation Chapters will mitigate water impacts.

**NATURAL RESOURCES:** Although natural resource consumption under the Plan is considered less than significant from a regional perspective, any increased use of nonrenewable resources is considered an impact on the environment. There are no known endangered or rare species of animals or plants that will be impacted by the Plan. There are no known habitats in Downey. Policies of the Conservation and Open Space/Recreation Chapters mitigate impacts.

**RISK OF UPSET:** Future industrial and commercial growth under the proposed General Plan might increase the amount of hazardous substances transported and generated in the City. The increase in the amount of hazardous substances can increase the risk of accidents resulting in significant environmental impacts. The impacts are mitigated by the policies of the Hazardous Waste Management and Safety Chapters.

**POPULATION:** The proposed General Plan, under full build-out, could result in an approximate 13-percent increase in Downey's population. The anticipated increase is considered significant because more people will create more congestion, traffic and air pollution. The increased population will occur as a result of larger family sizes as senior citizens move out and younger families replace them. The increase is approximately 600+ persons per year over the life of the plan. Land Use and Housing Chapter policies will mitigate the impacts of the increased population.

**PUBLIC SERVICES:** Greater demands on public services (police, fire, schools and public maintenance) can be expected at full build-out. This will happen gradually over the next twenty years, since the plan anticipates an additional 600+ persons per year. Policies of the Safety, Open Space/Recreation and Circulation Chapters mitigate the demand on public services.

**UTILITIES:** Any increase in utility use is an environmental impact. However, on a regional basis the impacts are not considered significant. Conservation, Land Use and Circulation Chapter policies mitigate the environmental impacts of utility use.

## Effects Found Not to be Significant

This EIR and the Initial Study of Environmental Impacts identified the following environmental issues as resulting in effects found not to be significant under the proposed General Plan: housing, noise, light & glare, cultural resources, energy, plant & animal life, human health, aesthetics and recreation.

## Beneficial Effects

Goals and policies in the Downey General Plan are designed to improve Downey's living and working environment by reducing land use conflicts, encouraging and monitoring appropriate developments, and protecting the health, safety and welfare of the City's residents and businesses.

## Areas of Public Concern or Known Controversy

During the General Plan process, a questionnaire was mailed to all Downey residents and businesspeople. A summary of the results are contained in the General Plan introduction. In addition, nine public meetings were held. Many concerns were raised, including retaining the single-family character of Downey. Traffic congestion, the need for a grade separation at the SPRR, and more street trees were frequently mentioned. At each meeting, detailed notes were taken. All noted concerns have been incorporated into the proposed Downey 2010 General Plan.

No public agencies raised issues of concern or controversy.

## Air Quality

As noted in the project description, this EIR does not address air quality in Downey. An air quality chapter is being prepared and will be presented to the City Council by December, 1992. A twenty city consortium has been established to address the sub-regional air quality issues. The consortium includes cities in southeast Los Angeles County and a few cities in northwest Orange County. A consultant will prepare the Air Quality Chapter which will be prepared in 1992.

## TABLE EIR-1

## SUMMARY OF IMPACTS

---

### 1. SIGNIFICANT ENVIRONMENTAL IMPACTS THAT CAN BE MITIGATED.

| Resource | Description of Impact | Mitigation Measures |
|---|---|---|
| Land Use | Increased population; related impacts on housing and circulation. | Redesignations of Land Use; goals & policies to minimize land use conflicts; establish a logical pattern of development; upgrade the appearance of the City; aid in the development of a strong and diversified economic base. |
| Circulation | Increased traffic. | Improved circulation plan; public transit; pedestrian & non-motor vehicle paths. |
| Earth | Exposures of people & buildings to earthquakes. | Emergency preparedness plan;maintenance of the Emergency Operations Center (EOC). |
| Water | Exposure of people & buildings to flood hazards; possible groundwater contamination. | Emergency preparedness plan; Capital Improvement Storm drain 5-10 year program; compliance with FEMA regs. |
| Natural Resources | Increased use of non-renewable natural resources. | Conservation of water and increased open space; recycling of materials; Source . Reduction and Recycling Element. |
| Risk of Upset | Increased amount of hazardous substances & greater potential for accidents. | Emergency preparedness plan; hazardous waste management outlined in Hazardous Waste Management Chapter. |

| | | |
|---|---|---|
| Population | About a 13% increase over the next 20 years. | Land Use & Housing goals;<br>Land Use Redesignations.<br>Noise, Safety & Circulation policies. |
| Public Services | Increased demand on police, fire, schools & public maintenance. | Service & developer fees |
| Utilities | Supplies of utilities will be adequate. | Capital Improvement Programs. |

## 2. EFFECTS FOUND NOT TO BE SIGNIFICANT.

The proposed 2010 General Plan, in conjunction with mitigation measures in this EIR, will not adversely impact the following areas: Housing, Noise, Light & Glare, Cultural Resources, Energy, Plant & Animal Life, Human Health, Aesthetics, and Recreation.

## 3. BENEFICIAL EFFECTS

Goals and policies in the Downey General Plan are designed to improve Downey's living and working environment by reducing land use conflicts, encouraging and monitoring appropriate developments, and protecting the health, safety and welfare of the City's residents.

## 4. MITIGATION MONITORING

Mitigation monitoring programs will be incorporated into the yearly "state of the plan" report prepared for the City Council; it is also a policy of the Plan to review it annually and revise it as needed.

## PROJECT DESCRIPTION

Downey is located 12 miles southeast of Los Angeles Civic Center in Los Angeles County. It is 12.8 square miles and has relatively flat terrain. It is virtually surrounded by freeways; the I-5 freeway to the north, the I-605 to the east, the I-710 to the west and the nearly completed I-105 freeway on the south. It is surrounded by the cities of Santa Fe Springs, Pico Rivera, Commerce, Bell Gardens, South Gate, Paramount and Norwalk. Rivers form the east and west boundaries of the city; the San Gabriel River on the east and the Rio Hondo River on the west. Incorporated cities completely surround Downey; there is no sphere of influence beyond the city limits.

Downey is a mature community experiencing the forces of change. It's greatest period of growth occurred during the 1950's, 40 years ago. Since buildings have a 40-50 year life, Downey is beginning to recycle and redevelop. Changes in the Southern California basin also affect Downey. The General Plan addresses many of the potential changes and contains related policies and programs.

### Project Characteristics

Each chapter of the Downey General Plan contains goals, issues, policies and programs followed by text and background data. They present an overview of Downey in 1991. They present information and statistics analyzed in this EIR. They also provide the basis for the goals and policies of the chapters. The major components of the chapters are:

**Land Use:** The intensity and distribution of future developed areas are described in the Land Use Chapter and illustrated in the 2010 Land Use Diagram. Land Use development standards are established. The chapter retains the balance between residential, commercial and industrial uses.

**Circulation:** Traffic and street problems and the movements of goods and services are addressed in this chapter. Policies and programs are established which will improve the ability of the circulation systems to meet the transportation needs of Downey.

**Housing:** Housing assistance programs and development policies designed to provide adequate housing for all income groups are described.

**Conservation:** Policies designed to maintain and improve existing natural resources are contained in this chapter. Water conservation is discussed as are street tree and recycling programs.

**Safety:** Protection from natural and man-made disasters is the focus of this chapter. Downey's Emergency Preparedness Plan is designed to protect citizens in the event of a major fire, earthquake, air disaster, chemical explosion, leak of dangerous fuels, flooding or a state of war.

**Noise:** Primary sources of noise within the community and ways to protect existing and future noise-sensitive land uses are discussed.

**Open Space:** Preservation of existing open space and identification and preservation of historic and archeological resources are discussed.

**Design:** Community design is used to create a strong visual image for the community and to upgrade and preserve the high-quality of the city. The character of certain neighborhoods, such as the historic downtown area, can be established with good design.

**Economic Development:** The type and mix of land uses in Downey are addressed in this chapter from a fiscal perspective. Conclusions are based upon a cost/revenue fiscal impact model prepared specifically for the City. The chapter provides goals and policies intended to help Downey compete successfully with surrounding communities in attracting revenue-generating light industries, services and retail outlets. The chapter also addresses Downey's need to generate revenues for necessary services.

**Hazardous Waste Management:** The chapter guides the development of off-site and on-site hazardous waste facilities in Downey. It contains policies and programs to tailor the County Hazardous Waste Management Plan to fit the needs of Downey.

### Project Objectives

The overall General Plan objective is to establish comprehensive planning policies and programs designed to improve the living and physical environment in Downey. This is accomplished by revising, refining, and redefining the City's long-range planning objectives. The General plan update also ensures that the Plan conforms with revised State of California general plan law.

### Relationship to Zoning and Other Plans

Implementation of the proposed General Plan will require changes in the existing Downey Zoning Code and Map. State law (Government Code Section 65860) requires consistency between the general plan and zoning. Because the zoning code will be used to implement the General Plan, the code must reflect the types and intensities of land use permitted under the General Plan.

State law also requires that other land use plans, such as redevelopment area plans, be consistent with the General Plan. None of Downey's existing redevelopment areas will have to be altered to maintain consistency.

### Uses of the EIR

This EIR will be used by the City of Downey to provide the information necessary for comprehensive and informed environmental review of discretionary actions related to the adoption and implementation of the General Plan. The EIR can be used for reviewing the following discretionary actions:

1. **General Plan Adoption:** Both the City Planning Commission and the City Council will hold public hearings and will review the General Plan prior to adoption of a resolution approving the Plan.

2. **Subsequent Environmental Review:** The EIR can serve as the information base for subsequent environmental review of specific projects. The impacts of future proposals can be assessed using this EIR as a source of specific and citywide data.

## ENVIRONMENTAL IMPACT ANALYSIS

This section of the EIR is concerned with identifying the impacts anticipated from implementation of the General Plan. Impacts are expected primarily from the long-term implementation of land use policy described in the Land Use Chapter. Therefore, the analysis focuses on impacts related to the redesignation in land uses in specific areas of the city.

CEQA guidelines state that with a proposed project such as the 2010 General Plan, the EIR shall examine existing physical conditions as well as the potential future conditions proposed by the plan (Section 15125c). Therefore, this section of the EIR analyzes the impacts of the following:

existing land use
buildout in accord with the proposed General Plan

The anticipated impacts were identified by City staff in the initial study and from the responses to the notice of preparation received from the various agencies. Each impact is discussed separately. Each issue area is addressed according to:

Environmental Setting: Description of the existing conditions, facilities, services and/or environment;

Environmental Impact: Description of anticipated impacts of the proposed policies discussed in qualitative or quantitative terms;

Mitigation Measures: Identification of policies and implementation measures that will be effective in eliminating or reducing environmental impacts.

Areas identified as having potential environmental impact include:

Land Use, Transportation/Circulation, Air Quality, Earth, Water, Light & Glare, Natural Resources, Noise, Risk of Upset, Population, Housing, Public Services, Energy, Utilities, Cultural Resources.

## LEGEND

**RESIDENTIAL**
- ▢ Low Density
- ⊚ Low/Med Density
- ░ Medium Density

**COMMERCIAL**
- ▦ General Commercial
- ▤ Neighborhood
- ▩ Office

**MANUFACTURING**
- ▨ Commercial Manufacturing
- ▤ General Manufacturing

**OPEN SPACE**
- ▒ Parks, River Beds, Utility Easements, Golf Courses, Cemetery

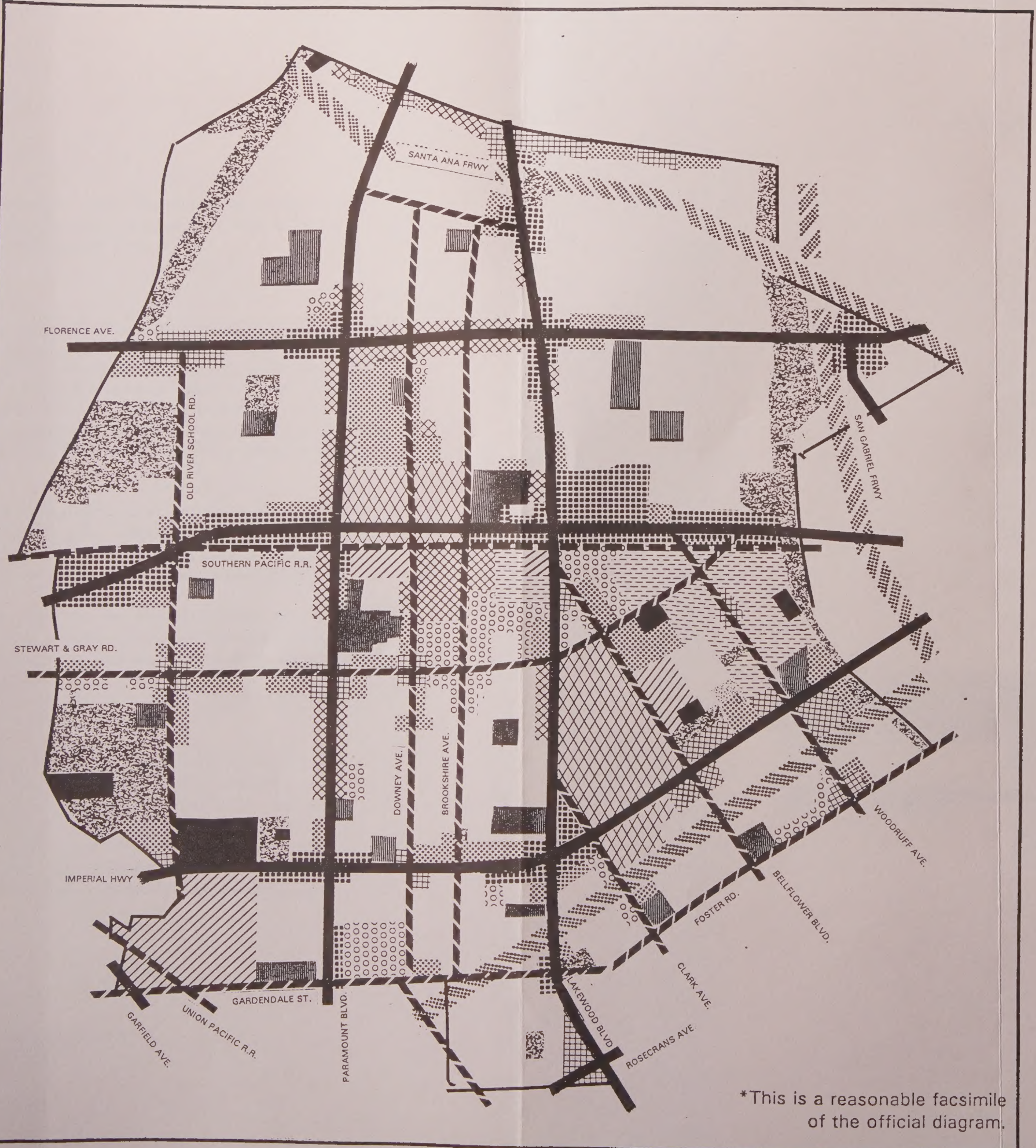
**SCHOOLS**
- ▥ Schools/Public & Private

**PUBLIC**
- ■ Other Public

**MIXED USE**
- ▩ Mixed Use

**CIRCULATION**
- ▧ Freeway
- ▬ Arterial
- ▰ Secondary
- ▬ ▬ ▬ Railroad

SOURCE: City of Downey


SANTA ANA FRWY
FLORENCE AVE.
OLD RIVER SCHOOL RD.
SAN GABRIEL FRWY
SOUTHERN PACIFIC R.R.
STEWART & GRAY RD.
DOWNEY AVE.
BROOKSHIRE AVE.
WOODRUFF AVE.
IMPERIAL HWY
BELLFLOWER BLVD.
FOSTER RD.
CLARK AVE.
GARDENDALE ST.
GARFIELD AVE.
UNION PACIFIC R.R.
PARAMOUNT BLVD.
LAKEWOOD BLVD.
ROSECRANS AVE

*This is a reasonable facsimile of the official diagram.

# GENERAL PLAN LAND USE DIAGRAM 2010*

## EXHIBIT EIR-2

## ENVIRONMENTAL IMPACT REPORT

Not to scale.

## DOWNEY GENERAL PLAN

Vision 2010

## LAND USE

### Environmental Setting

Downey is virtually a built out community. New development results from infill construction and redevelopment. A comprehensive discussion of land use in Downey is contained in the Land Use Chapter of the Downey General Plan.

### Environmental Impacts

The total land area within Downey is 12.8 square miles. Once an agricultural community, Downey is now a full-service city of 91,000 persons. Older homes, evidence of Downey's past, are scattered throughout the City. Downey's location in the southeast area is an asset. It is located near the ports of Los Angeles and Long Beach and it is 12 miles from Los Angeles Civic Center. Downey is surrounded by freeways, which is both an asset and a constraint. The freeways offer easy access and visibility; they also create a physical barrier for the city and contribute to poor air quality and high noise levels throughout the city.

All issue areas discussed in this EIR are affected by land use policies and the land use changes proposed in the 2010 Land Use Diagram. Table-EIR-2 compares existing land uses and proposed General Plan acreages. The numbers in the table are used throughout the EIR as the basis for assessing impacts related to acreages of comparable land uses.

Because the existing land use patterns in Downey are well-established, the General Plan does not propose major changes in land use patterns. Residential densities have not been changed. To retain the single-family character of the community, which was a primary concern of the public, the steering committee and staff; a few medium density residential areas have been changed to reflect the actual land use which is single-family. Some were in locations that were better suited for commercial use.

There is an increase in office use acreage . Office use is clean and provides a good buffer for residential areas. Although 120+ acres of Rancho Los Amigos Hospital was recently changed to light industrial, the proposed plan shows a drop in industrial use acreage. This is due to the change in designation for Rockwell from manufacturing to mixed use, and to sections of Firestone being changed from industrial to commercial. The medium density designations on Firestone Boulevard were also changed to commercial. Many of the proposed land use designations reflect how the property is actually being used.

## TABLE EIR-2

## GENERAL PLAN CHANGES FROM EXISTING TO 2010 PLAN

| GENERAL PLAN DESIGNATION | 1990 Land Use Inventory (Acres) | 2010 Plan (Acres) |
|---|---|---|
| Residential: | 3798 | 3764 |
| Low Density | 3256 | 3280 |
| Low/Medium | 112 | 114 |
| Medium | 430 | 370 |
| Commercial: | 574 | 516 |
| Office | 118 | 167 |
| Retail | 456 | 349 |
| Industrial: | 529 | 372 |
| General Manufacturing | 529 | 226 |
| Commercial/ Manufacturing | N/A | 146 |
| Mixed Use | N/A | 359 |
| Open Space | 568 | 568 |
| Schools | 308 | 308 |
| Public | 184 | 184 |
| Other (inc. Vacant) | 110 | N/A |

## TABLE EIR-3

## EXISTING FLOOR AREA RATIOS & BUILDING INTENSITY

| Land Use Designation | Existing Floor Area Ratio & Range | Existing # of Acres | Potential Building Intensity (sq. ft.)[2] |
|---|---|---|---|
| Office | .25 to 4/1 | 118 | 20,560,320 |
| General Commercial | .29 to .5 | 456 | 9,933,858 |
| Commercial/ Manufacturing | N/A | N/A | N/A |
| Manufacturing | .45 to .79 | 529 | 18,204,160 |

---

[2] This is based on what could be the maximum building intensity; it is not existing.

## TABLE EIR-4

## PROPOSED FLOOR AREA RATIOS, PROPOSED INTENSITIES, PERCENT OF DIFFERENCE TO EXISTING F.A.R. INTENSITY

| Land Use Designation | Proposed Floor Area Ratio & Range | Proposed # of Acres | Proposed Intensity | Difference from Existing Intensity |
|---|---|---|---|---|
| Office | .5/1 to 5/1<br>Garden Office = 80% @ .5/1,<br>Hospital/Medical = 20% @ 5/1 | 167 | G/O = 2,909,808<br>H/M = 7,274,520 | -50% |
| Neighborhood Commercial | .25/1 | 100 | 1,089,000 | N/A |
| General Commercial | .25/1 to 4/1<br>General Commercial = 80% at .25/1<br>Office = 20% @ 4/1 | 249 | G/C = 2,169,288<br>Office = 8,677,152 | +9% |
| Commercial Manufacturing | .6/1 to 4/1<br>Manufacturing = 70% @ .6/1<br>Office = 10% @ 4/1<br>Retail = 20% @ .25/1 | 146 | M = 2,671,099<br>O = 2,543,904<br>Retail = 317,988 | N/A |
| Manufacturing | .6//1 to 4/1<br>Manufacturing = 90% @ .6/1<br>Office = 10% @ 4/1 | 226 | M=5,316,062<br>O=3,937,824 | -49% |
| Mixed Use[3] | Downtown: | 107 | | N/A |
| | Med. Residential = 30% @ 24du/a | | 800 units | |
| | General Commercial = 70% @ .25/1 | | G/C = 815,661 | |
| | Rockwell & L.A. County[4] | 252 | 250 to 700 units | |
| | Med. Residential = 4-11% @ 24du/a | | | |
| | Open Space = 4-8% | (10 to 20 acres) | | |
| | .6/1 to 4/1<br>Commercial/Manu = 81-92% | | M=3,732,221 to 4,244,486<br>O=3,554,496 to 4,042,368<br>R=444,312 to 505,296 | |

---

[3] The Mixed Use figures are concept only; the actual numbers will be determined when the specific plans for the areas are written.

[4] The designated mixed use site consists of Rockwell and L. A. County land; the residential units would be placed on the L. A. County site; the open space and commercial/manufacturing would be located on the Rockwell property.

The General Plan established building intensity. The standards define the most intensive building concentration for the land use designation. Building intensity is used to identify building concentration, potential traffic problems, housing policies and effects on sewer, utility, storm drain and landfill systems.

Floor Area Ratio's (FAR's) are the most common measure of building intensity. Actual intensities remain essentially the same. Ranges are used to illustrate the minimum to maximum permitted for each land use designation. General commercial range .25/1 would be used for retail centers, while 4/1 would be used for large offices. The proposed intensity figure is a scenario---Staff used the top of the range figure to present more building intensity for determining impacts.

Patterns of development are well established and have not been greatly altered. Commercial and industrial uses are located along the major and secondary streets, buffering the single-family residential areas.

Sections of Paramount Boulevard, between Firestone Boulevard and Imperial Highway, are proposed to be office uses. Existing uses are office, multi-family and commercial. Firestone Boulevard, which is now manufacturing, commercial and multi-family is proposed to be commercial.

Two large areas of the city have been designated mixed use. The historic downtown area is proposed to be mixed residential & commercial uses. Theaters, shops and restaurants are envisioned for the downtown. They would be patronized in part by the residents of the area.

The Rockwell/L. A. County site is also designated mixed use. The City anticipates that defense cutbacks might force Rockwell to leave Downey. The City must prepare for that event. The General Plan proposes residential, commercial, manufacturing and open space for the 200+ acre site. The residential units would be located on the L. A. County site south of Imperial Highway.

Open Space in Downey will be preserved; therefore there will be no alterations to the ecological system.

The rate at which development will occur within Downey is unpredictable. Interest rates, employment trends and individual preference are some of the variables that influence development.

Overall land use impacts are mitigated by the policies of the Land Use Chapter.

Mitigation Measures

The Land Use, Housing, Noise, Safety and Circulation Chapters will serve to minimize land use impact, devise a logical pattern and pace of land use development, improve traffic circulation, and retain the existing high-quality residential character of Downey. Relevant policies include:

Land Use Chapter: All policies
Housing Chapter: All policies
Noise Chapter: All policies
Safety Chapter: All policies
Circulation Chapter: All policies

**Land Use Policies**

**The City shall:**

1.1.1 Encourage owner-occupied housing development;

1.1.2 Regulate residential density to reflect minimum lot sizes appropriate for the respective neighborhoods;

1.1.3 Retain the pattern of large residential parcels where appropriate;

1.1.4 Promote property maintenance;

1.2.1 Strive to retain the relative balance of land uses;

1.3.1 Encourage quality construction on development as properties recycle;

1.3.2 Encourage adaptive re-use of older structures;

1.3.3 Create areas for mixed land uses;

1.3.4 Continually review areas in the process of transition;

1.4.1 Eliminate inconsistent zoning;

1.4.2 Create neighborhood centers, or "nodes", at designated intersections;

1.4.3 Revise the zoning ordinance to include development and performance standards;

1.4.4 Examine the impacts of child care needs;

1.5.1 Capitalize on the four freeways that virtually surround the community; the I-5, I-605, I-710 and the I-105;

1.5.2 Capitalize on the regional opportunities offered by Downey's location and accessibility;

1.5.3 Market the community at development conferences and when other opportunities arise;

1.6.1 Monitor, review and comment on regional plans, as they relate to the City's General Plan;

1.6.2 Monitor, review and comment on activities of neighboring cities, as they relate to the City's General Plan;

1.6.3 Market the City's potential for commercial and manufacturing uses;

1.6.4 Continue to advise the Public Utilities Commission of its concerns regarding railroad traffic through the community;

1.7.1 Designate some of these other public agency areas as Special Planning Areas.

**Housing Policies**

**The City shall:**

3.1.1 Continue aggressive housing rehabilitation programs;

3.1.2 Continue "pro-active" code enforcement programs;

3.2.1 Phase out zone exception cases which have severely impacted residential neighborhoods;

3.2.2 Continue to enforce ordinances which separate residential uses from commercial and office uses;

3.2.3 Preserve the arbitrary setbacks provision of the code;

3.3.1 Annual surveys should be performed, keeping Downey's application fees in parity with surrounding jurisdictions;

3.3.2 Continue the policy of "thirty day turn around" for residential applications which require public hearings;

3.3.3 Continue the policy of supplemental plan checking and inspection during periods of increased building activity. Three week first check and one week recheck is ideal. Twenty four hour turn around for inspection is encouraged.

3.4.1 Residential specific plans should provide specialized development standards for setbacks, lot coverage, garage requirements and property maintenance;

3.4.2 Where possible, residential specific plans should include implementation programs, focussing on funding and incentives encouraging neighborhood improvements;

3.5.1 Encourage housing developers to work with the local community, including making units available to residents;

3.5.2 Encourage the State to make surplus Caltrans property available to residents;

3.5.3 Continue to enforce ordinance provisions limiting the conversion of apartments to condominiums;

3.5.4 Cooperate with Los Angeles Department of Community Development, housing and Urban Development and non profit organizations seeking to expand the supply of affordable housing;

3.5.5 Encourage private lenders to provide alternative financing to make home ownership available to a greater number of households;

3.5.6 Support and encourage sweat equity and limited equity housing programs;

3.6.1 Continue policy of keeping development exactions and fees at parity with surrounding cities;

3.6.2 Mitigation measures should be explored and added to projects which do not add substantial costs, either to new residents, or city services;

3.7.1 Continue the 20% housing set aside for low and moderate income families;

3.7.2 Require developers to address housing relocation and replacement issues early in the project development and approval process;

3.7.3 Encourage the redevelopment agency, when assisting in public housing, to participate in rent limitation agreements;

3.8.1 Through density bonuses and fee reductions, encourage affordable housing in planned developments;

3.8.2 Prohibit housing development on land which is environmentally unsuitable;

3.8.3 Continue to work with FEMA to modify the preliminary flooding map. Encourage FEMA to adopt the lowest insurance rates possible;

3.9.1 Encourage the use of barrier-free architecture in new housing developments;

3.9.2 Encourage the construction of senior housing;

3.9.3 Support local, non-profit agencies that serve the homeless;

3.9.4 Support fair housing legislation;

3.9.5 Support legislation in Congress to make prepayment of HUD loans more difficult;

3.9.6 Encourage non-profit groups to purchase the 62 unit federally assisted project if the present owners chose to prepay the HUD loan.

**Noise Policies**

**The City shall:**

6.1.1 Require noise reduction measures in all new construction where necessary;

6.1.2 Require that noise sensitive land uses be located away from major noise sources;

6.1.3 The City's noise standards shall be 45 dB CNEL interior and 60dB CNEL on the exterior;

6.2.1 Work with the railroad companies in developing and implementing noise reduction methods in their operations;

6.2.2 Work with the Federal Aviation Administration, the Division of Aeronautics and the Los Angeles County Airport Land Use Commission to develop guidelines for addressing airplane and helicopter noise;

6.3.1 Enforce the existing noise ordinance and revise the ordinance, when necessary, to address changes in technology;

**Safety Policies**

**The City shall:**

5.1.1 Prepare for the catastrophe that will result from a major quake;

5.2.1 Participate in the FEMA program;

5.2.2 Support the Army Corps of Engineers' projects;

5.2.3 Evaluate and establish a program regarding drainage systems as they pertain to future growth;

5.3.1 Maintain the priority program established in the 1988 Montgomery Water Study Update for upgrading the water system;

5.3.2 Develop programs to protect life and property from fire;

5.4.1 Reduce crime in Downey;

5.5.1 Monitor the existing landfill and implement appropriate safety measures;

5.6.1 Maintain the current multi-hazard function emergency preparedness plan to include the following threats:
1) major earthquakes 2) hazardous materials incidents 3) eminent or actual flooding 4) eminent or actual dam failure 5) aircraft accident and 6) war.

5.7.1 Require installation of street lights and sidewalks throughout the City;

5.8.1 Request Southern Pacific Railroad cooperation in facilitating access to Downey Community Hospital.

**Circulation Policies**

**The City shall:**

2.1.1 Promote traffic safety by improving the level of service on major streets, where possible;

2.2.1 Pursue the standard for transportation corridors within the City that correlate with land use demands;

2.2.2 Promote traffic safety to protect residential neighborhoods;

2.3.1 Comply with provisions of the Congestion Management Plan;

2.4.1 Consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped and the general public;

2.4.2 Coordinate with other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City;

2.5.1 Work with the Southern Pacific Railroad Line and developers to help integrate the railroad with its surroundings;

2.5.2 Request Southern Pacific Railroad cooperation in facilitating access to Downey Community Hospital.

2.6.1 Encourage the safe and efficient movement of truck traffic through the City;

2.6.2 Land uses promoting the use of heavy trucks should be discouraged within the City;

2.7.1 Encourage walking and bicycling as attractive alternatives to vehicular transportation;

2.7.2 Require a Master Plan of street lights and sidewalks throughout the City;

2.8.1 The City's seven-year Capital Improvements Program should address the following improvements, as necessary:

Street systems
Sewer facilities
Water supply
Drainage facilities
Other major capital investments necessary to sustain the City's development and operation.

## CIRCULATION

### Environmental Setting

The Circulation Chapter describes the existing transportation and roadway system in Downey. Problem areas and opportunities for improvements are also identified.

### Environmental Impacts

The major portion of the circulation system in Downey has developed over a period of years and with that development, circulation problems have been built into the system. Because Downey is a mature community, remedies to these problems are limited and potential solutions must be carefully evaluated. The Rancho Business Park and the Stonewood renovation were recent opportunities to mitigate traffic problems in those areas.

The predominant circulation system within Southern California is the freeway system. Downey is centrally located between 3 existing freeways and another under construction. The Santa Ana Freeway (I-5) runs in a northeast-southwest direction in the northern portion of the city. The San Gabriel Freeway (I-605) runs in a north-south direction, through the northeast portion of Downey. The Long Beach Freeway (I-710), which runs in a north-south direction, is located approximately one mile west of Downey. The Glen Anderson Freeway (I-105) is located in South Downey, and runs east-west. It is due to be completed in 1993. It will also have a commuter train, the Green Line, operating in its right-of-way. It is expected that the I-105 freeway will decrease vehicle trips on Imperial Highway and Firestone Boulevard, thereby mitigating impacts at intersections along those two major arterials.

### EXISTING CONDITIONS

To measure the existing traffic conditions of the arterial street system, field studies were conducted by Weston Pringle and Associates and counts were completed by Newport Traffic Studies. AM and PM peak hour traffic counts were conducted at 39 study intersections. Roadway geometric information was also collected during the field studies. Exhibit EIR-4 shows the results of the existing roadway geometrics within the study area.

Existing (Year 1991) average daily traffic volumes were obtained through the City of Downey Traffic Engineering Department (Exhibit EIR-5). Daily traffic analyses represent only general indicators of roadway operations; in such studies as General Plans where long range conditions are forecasted, the daily traffic analyses fulfill the needs of the study. Intersection Capacity Utilization methodology (discussed in the Circulation Chapter) will provide more information than the daily traffic analyses that have been provided for informational purposes.

Following are the characteristics of several of the major arterials and secondary highways that serve the City of Downey.

Firestone Boulevard

- Major Arterial
- Four to six travel lanes depending on parking restrictions
- 40 MPH speed limit east of Lakewood Boulevard and west of Paramount Boulevard
- Curb-to-curb width of 84 feet

Imperial Highway

- Major Arterial
- Six lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 80 feet

Florence Avenue

- Major Arterial
- Primarily six lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width ranging from 76 to 78 feet

Telegraph Road

- Major Arterial
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 76 feet

Paramount Boulevard

- Major Arterial
- Primarily four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 80 feet

Lakewood Boulevard

- Major Arterial
- Primarily four lane divided roadway (Near the I-5 it widens to six lanes)
- 40 MPH speed limit
- Curb-to-curb width varies from 76 to 80 feet

Stewart and Gray Road

- Secondary Highway
- Four lane undivided roadway
- 35 to 40 MPH speed limit
- Curb-to-curb width varies from 60 to 64 feet

Woodruff Avenue (east)

- Major arterial
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 76 feet

Old River School Road

- Secondary Highway
- Four lane undivided roadway
- 40 MPH speed limit
- Curb-to-curb width of 56 feet

Downey Avenue

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit (25 MPH between Firestone Boulevard and Fifth Street)
- Curb-to-curb width varies from 60 to 64 feet

Bellflower Boulevard

- Secondary Highway
- Four lane divided roadway
- 40 MPH speed limit
- Curb-to-curb width of 64 feet

Clark Avenue

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width varies from 56 to 62 feet

Gallatin Road (between Paramount and Lakewood Boulevards only)

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width of 64 feet

Gardendale Street

- Secondary Highway
- Four lane divided roadway
- 35 MPH speed limit
- Curb-to-curb width of 64 feet

Foster Road

- Secondary Highway
- Four lane undivided roadway
- 35 MPH speed limit
- Curb-to-curb width of 58 feet

Brookshire Avenue

- Secondary Highway
- Varies from two-lane undivided to four-lane divided roadway
- 35 MPH speed limit (25 MPH speed limit between Firestone Boulevard and Florence Avenue)
- Curb-to-curb width varies from 40 to 60 feet

AM and PM peak hour traffic counts were analyzed using the Intersection Capacity Utilization (ICU) methodology for signalized intersections and the 1985 Highway Capacity Manual (85HCM) for the unsignalized intersections. In the ICU methodology, an ICU value is calculated based upon the peak hour intersection volumes and available roadway capacity. These values are then related to Levels of Service (LOS) which are qualitative descriptions of intersection operations and range from "A" (the best) to "F" (the worst), similar to report card grades. "A" means no congestion and "F" means severe congestion. It is generally recognized that LOS A through D represent acceptable operations while LOS E and F indicate an over-capacity situation.

When a City is mature and not experiencing much growth and the intersections are built out, Level of Service of E could still be considered acceptable.[5] The Technical Appendix in the Circulation Chapter contains a more detailed explanation of ICU and its relationship to LOS. The ICU and 85HCM analyses are contained in the Technical Appendix of the Circulation Chapter.

It was determined that this analysis methodology provides an acceptable standard for evaluating existing conditions as well as future operations. Since daily capacities are based on assumptions of "average" traffic distributions through a day, this method accounts for the potential fluctuations from this "average" traffic pattern.

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[5] Weston Pringle and Associates

The Circulation Chapter has adopted Level of Service (LOS) "E" as acceptable to the City. Firestone and Lakewood are operating at LOS F and will remain so under the Congestion Management Plan. Lakewood and Firestone are part of the CMP, although Firestone will be dropped when the Glenn Anderson Freeway is opened. Three intersections in Downey will be monitored under the CMP; Firestone & Lakewood, Old River School Road and Firestone, and Telegraph Road and Lakewood.

## GENERAL PLAN UPDATE [6]

Future travel demands are directly related to changes in future land use. When changes are made to the type or intensity of a land use, there will be a change in travel demands. In addition, any change to the circulation system will impact land use. This relationship between circulation and land use is the most important concept in the Circulation Chapter.

To analyze the traffic impacts of the proposed General Plan Update, it was necessary to determine the trip generation rates of the proposed land uses. Trip generation rates applicable to the proposed and existing land uses were referenced from Trip Generation[7]. The existing land uses were compared to the proposed land uses. The incremental difference between these two plans represents the development which will generate the future traffic impacts.

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[6] Weston Pringle and Associates

[7] Trip Generation, 5th Edition; Institute of Transportation Engineers (ITE), 1991.

## TABLE EIR-6
### TRIP GENERATION RATES

| Land Use | Descriptor | Daily Trips Per Descriptor |
|---|---|---|
| Low Density Residential | Dwelling Unit | 10 |
| Low-Medium Density Residential | Dwelling Unit | 10 |
| Medium Density Residential | Dwelling Unit | 8 |
| Neighborhood Commercial | Acre | 400 |
| General Commercial | Acre | 500 |
| Office | Acre | 300 |
| Commercial/Manufacturing | Acre | 200 |
| General Manufacturing | Acre | 60 |

The City was divided into 26 traffic study areas. The Changes to the Downey Land Use Exhibit illustrate the traffic study areas. The land use changes for each zone were provided by the City of Downey Planning Department. Given the trip rates listed in Table EIR-6, the total daily and peak hour trip end generation for each area was calculated.

When analyzing a large area such as a General Plan, some adjustments in the trip generation should be made to account for trips which remain internal to the traffic study zone, the double counting of trips which are made from one area to another, and the passerby effect where some of the new trip ends originate from the existing traffic stream.

Internal trips occur when the start and end of a trip are both within an area and do not impact the surrounding areas. It is true that some of these trips may utilize arterials within the study areas, but in these cases the double counting effect still applies.

The double counting effect exists because of the way trip generation analyses are calculated. Trips generated by any particular project are expressed in terms of "trip ends". Therefore, if someone drives from home to a shopping center, two trip ends are generated (one leaving the residential and one arriving at the shopping center), but only one trip was made. In large projects where many of the trips are made between land use within the same overall project area (the City of Downey) an adjustment to the trip end totals must be made.

Another factor is a reduction in traffic due to the passerby effect. This effect is most common for retail land uses and occurs when existing traffic (i.e. a person going from work to home) stops at a new shopping center on the way home. This stop would be counted in the trip generation as two trip ends (one arriving and one leaving), but in reality there are no increases in traffic since the driver was already on the roadway, going home from work.

A 30 percent reduction was taken due to double counting of trips and trips remaining internal. This reduction was applied to all proposed land uses except retail/commercial and residential. For the retail/commercial land uses a range of 20-30 percent passby reduction was taken based upon the applicable square footage.

Trip distribution patterns were developed for each of the traffic study areas based on location of trip attractors, the surrounding street system, proximity of freeway access and type of land use. The adjusted trip ends for each area were assigned to the surrounding street system. These adjusted trip ends were all assumed to have origination or destinations outside the City of Downey limits.

The adjusted trip ends were applied to the study intersections and the ICU analysis was updated. Nine of the 39 study intersections are projected to operate at unacceptable Levels of Service.

MItigation measures include traffic signal synchronization and restriping to add more lanes. Since Downey is a built-out city, it would be difficult and expensive to acquire rights-of-way for construction of new lanes. Given the current economic situation, Downey has not adopted any policies to acquire land for street dedication.

## Glenn Anderson Freeway Impacts

Although future Levels of Service have been projected based upon present traffic patterns, the City of Downey believes that the Glenn Anderson Freeway impacts cannot be accurately predicted. Caltrans has given no projections for future impacts. It is difficult to predict LOS for Firestone, Imperial, Paramount and Bellflower. The City also believes that present traffic patterns are skewed as commuters seek new ways to avoid the freeway construction. To mitigate this, a policy has been adopted to prepare a new traffic study after the freeway is complete.

## Growth Rate

The City of Downey has not used a growth rate factor in future projections. Many factors have been taken into account in making this decision. One component is the implementation of Proposition 111 through the Congestion Management Plan, implementation of Transportation Demand Management (TDM) programs and AQMD (Air Quality) requirements. A reduction in trips will be established when these practices go into action. Another factor is that Downey and the surrounding areas are older communities. Development has been in place for many years and growth within this area is not taking place at a substantial rate. It is believed that any growth would be off-set by the legislative travel reduction programs; such as ridesharing, varied work schedules and alternative forms of transportation.[8] Exhibit EIR-6 identifies Year 2010 daily volumes for the City of Downey.

## Other Transit Systems

RTD has nine bus routes through Downey. When the I-105 freeway is completed it will have the Metro Green Line, with a stop at Lakewood Boulevard. Commuters can take the train to the Los Angeles Airport, or they can connect with the Blue Line to either Long Beach or downtown Los Angeles.

The City operates Downey Transit, a transit program for seniors and disabled residents which has been in operation since the mid-1970's. The service is scheduled seven days a week and eligible riders are persons who are 50 years of age and those who are disabled. The transit service is currently available only through a dial-a-ride program. The Parks and Recreation Committee recently completed an Intracommunity Transit Study. One of the recommendations is to develop a fixed-route service available to all Downey residents. This would be funded through Proposition "A" and "C" funds.

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[8] Weston Pringle and Associates

Mitigation Measures

All of the goals and policies in the Circulation Chapter serve as mitigation measures for circulation impacts.

Circulation Chapter: All policies

**Circulation Policies**

**The City shall:**

2.1.1 Comply with provisions of the Congestion Management Plan;

2.2.1 Promote traffic safety by maintaining and improving the level of service on major streets, where possible;

2.3.1 Consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped and the general public;

2.3.2 Coordinate with other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City;

2.4.1 Work with the Southern Pacific Railroad Line and developers to help integrate the railroad with its surroundings;

2.5.1 Encourage the safe and efficient movement of truck traffic through the City;

2.5.2 Land uses promoting the use of heavy trucks should be discouraged within the City;

2.6.1 Encourage walking and bicycling as attractive alternatives to vehicular transportation;

2.7.1 Ensure that transportation corridors within the City correlate with land use demands;

2.7.2 Promote traffic safety to protect residential neighborhoods;

2.7.3 Promote traffic safety by improved access to commercial and industrial lands;

2.8.1 The City's seven-year Capital Improvements Program should address the following improvements, as necessary:

Street systems
Sewer facilities
Water supply
Drainage facilities
Other major capital investments necessary to sustain the City's development and operation.

## AIR QUALITY

Air quality is a regional issue. Adoption of the Downey General Plan will not immediately affect air quality in Downey and the surrounding region. Over time, however, specific new developments, and the construction thereof, will contribute to existing pollution.

### Air Quality Setting

The Southern California Air Quality Management District's Lynwood air quality monitoring station is the closest and the most appropriate monitoring station for Downey. According to air quality monitoring conducted at Lynwood in 1990, ozone levels exceeded the federal and state standards on 3 and 11 days respectively. Carbon Monoxide levels exceeded the federal and state 8-hour standards on 42 and 44 days respectively, and the federal nitrogen dioxide and sulfur dioxide standards were not exceeded. PM10 levels were not measured at Lynwood. A copy of the air quality monitoring data for 1990 is included in this report.

### Environmental Impacts and Mitigation Measures

Downey is a member of the Southeast County Air Quality Consortium. Twenty cities have banded together to produce a sub-regional air quality chapter. The chapter will be written by consultants and adopted by the Downey City Council by December, 1992. It is premature to adopt policies and programs before the Chapter is complete.

## EARTH

### Environmental Setting

Areas of concern under the proposed General Plan include changes to or removal of soil, increases in soil erosion, and exposure of people to geologic hazards. These issues are described in the Safety Chapter. Because Downey is an urban environment and a relatively flat terrain, soil erosion is not a major problem. However, thousands of people are exposed to geologic hazards, which, in Downey, are earthquakes.

### Environmental Impacts

New construction and development under the proposed General Plan will displace and overcover soil. Due to the large amount of hardscape and flatness of Downey's surface, there is not expected to be a significant impact on the condition or erosion of the soil. The General Plan does not envision any skyscrapers or many underground parking structures in the city, so extensive grading will not be necessary. Individual project plans will be inspected by the appropriate City departments to ensure that grading and construction plans will not produce significant environmental impacts.

A more detailed discussion of Downey's soil is contained in the Safety Chapter. The soils are stable.

Earthquake hazards are unavoidable in Southern California. However, there is no danger of liquefaction in Downey. Groundshaking is the major earthquake hazard. Because the General Plan could result in more people residing in Downey, and therefore more people exposed to earthquake hazards, these impacts are considered adverse. Implementation of the goals and policies listed below will ensure that the impacts are minimized and remain at a less than significant level.

### Mitigation measures

The following policies from the proposed General Plan can reduce the impacts on soil, erosion and the exposure of people to geologic hazards.

Safety Chapter: All goals and policies

**Safety Policies**

**The City shall:**

5.1.1 Prepare for the catastrophe that will result from a major quake;

5.2.1 Participate in the FEMA program;

5.2.2 Support the Army Corps of Engineers' projects;

5.2.3 Evaluate and establish a program regarding drainage systems as they pertain to future growth;

5.3.1 Maintain the priority program established in the 1988 Montgomery Water Study Update for upgrading the water system;

5.3.2 Develop programs to protect life and property from fire;

5.4.1 Reduce crime in Downey;

5.5.1 Monitor the existing landfill at Rio San Gabriel Park and implement appropriate safety measures;

5.6.1 Maintain the current multi-hazard function emergency preparedness plan to include the following threats:
1) major earthquakes 2) hazardous materials incidents 3) eminent or actual flooding 4) eminent or actual dam failure 5) aircraft accident and 6) war.

5.7.1 Require installation of street lights and sidewalks throughout the City;

5.8.1 Request Southern Pacific Railroad cooperation in facilitating access to Downey Community Hospital.

## WATER

### Environmental Setting

Water drainage, flood control and water supply are discussed in the Safety Chapter. Groundwater conservation and reclaimed water are discussed in the Conservation and Open Space/Recreation Chapters. To protect groundwater quality, the Hazardous Waste Management Chapter discusses the safe disposal of hazardous waste and prohibits on-site disposal near water wells.

### Environmental Impacts

The Federal Emergency Management Agency (FEMA) conducted a flood study of the Los Angeles River and released maps showing Downey would be inundated by flood waters in a 100 year flood. The maps were challenged by cities along the flood routes, including Downey. December, 1992, is the date that new maps are expected to be issued. Downey has rivers on its east and west boundaries; the San Gabriel River on the east and the Rio Hondo River on the west. Mitigation measures for flooding will be adopted at the time flood areas are finalized. Exhibit EIR-3 is the FEMA map presented in June, 1991. (The yellow areas on the map are not in the flood area).

Storm drain deficiencies are identified in the Safety Chapter of the General Plan. One of the policies in the Conservation Chapter maintains the capital improvement program for water supply improvement. Sufficient water for fire flow is also discussed in the Safety Chapter. Development under the proposed General Plan may result in changes in absorption rates, drainage patterns, or surface runoff. Specific impacts cannot be determined at this time because individual future projects will have to be analyzed.

The Safety Chapter also contains policies for upgrading the water system, including the upgrade of the fire flow system. The Conservation Chapter has an extensive discussion about water and ways to conserve water. The City is installing a reclaimed water system for freeway landscaping, parks, schools, golf courses and street medians. A water efficient landscape ordinance is being adopted for the park system. The Open Space Chapter also discusses the City's use of reclaimed water.

Mitigation Measures

The storm drain system will be upgraded as will the fire flow system. Downey will conserve water by installing a reclaimed water system and by conserving water in public buildings. The City will also adopt ordinances requiring water conserving plumbing fixtures in new construction. Flood mitigation measures will be adopted when FEMA maps are adopted. Relevant policies from the chapters include:

Safety Chapter: Policies 5.2.1, 5.2.2, 5.2.3, 5.3.1, 5.3.2
Hazardous Waste Management Chapter: Policy 10.5.1
Conservation Chapter: Policies 4.1.1, 4.1..2, 4.2.1, 4.2.2, 4.3.1, 4.3.2, 4.3.3, 4.3.4
Open Space Chapter: 7.3.1

**Safety Policies**

**The City shall:**

5.2.1 Participate in the FEMA program;

5.2.2 Support the Army Corps of Engineers' projects;

5.2.3 Evaluate and establish a program regarding drainage systems as they pertain to future growth;

5.3.1 Maintain the priority program established in the 1988 Montgomery Water Study Update for upgrading the water system;

5.3.2 Develop programs to protect life and property from fire;

**Hazardous Waste Management Policy**

**The City shall:**

10.5.1.1 Adopt a code amendment for siting criteria for hazardous waste facilities to include criteria for the following:

1) buffer zones and setbacks;
2) flood areas;
3) seismic activity;
4) soils;
5) performance standards;
6) restricted locations in areas of possible water contamination;
7) locate away from wells;
8) traffic impacts and transportation routes;
9) an Initial Environmental Study to determine adverse environmental effects;
10) site operations;
11) visual, noise and olfactory impacts;
12) air quality;
13) endangered species;
14) risk assessment.

**Conservation Policies**

**The City shall:**

4.1.1. Continue to encourage the conservation of water though the water bill process;

4.1.2 Information shall be made available to users regarding conservation methods.

4.2.1 Examine the feasibility of a reclaimed water system to support fire service; and shall evaluate and participate in the use of reclaimed water for irrigation of public areas and industrial uses;

4.2.2 City facilities shall be designed to conserve water.

4.3.1 Develop standards for water conserving plumbing fixtures in all new construction;

4.3.2 Require water conserving appliances and fixtures in all commercial or industrial developments;

4.3.3 Implement a public information program pertaining to water conservation and recycling issues;

4.3.4 Consider incentive programs for commercial and industrial operations that conserve water.

**Open Space Policy**

**The City shall:**

7.3.1 Upgrade existing recreation facilities and parks.

## LIGHT & GLARE

### Environmental Setting

Land uses in Downey do not produce an unusual amount of light and glare. Street lights and exterior building lights installed for security purposes are the primary source of outdoor lighting. The majority of commercial and industrial buildings are constructed of concrete and brick, which do not produce irritating glare effects.

### Environmental Impacts

Since future light & glare would result from new developments, impacts cannot be comprehensively assessed at this time. Potential light and glare effects will be analyzed for individual projects as they occur. Measures will be taken to ensure that such impacts remain at a less than significant level.

### Mitigation Measures

The City's environmental review process, including plan review and plan check, will facilitate future analysis of light and glare impacts of individual projects. Industrial and commercial uses adjacent to residential units will be required to direct outdoor lighting away from residences. Relevant policies include:

Land Use Chapter: 1.4.3

**Land Use Policy**

**The City shall:**

1.4.3 Revise the zoning ordinance to include development and performance standards.

## NATURAL RESOURCES

### Environmental Setting

The Conservation Chapter discusses Downey's natural resources. Downey is a built-out city in an urbanized area. It has no known mineral resources. It has no forests, and very little agricultural land. There are no known habitats in Downey.

### Environmental Impacts

Nonrenewable energy, water, and material resources will be used as development occurs in accord with the proposed land use policies. They will be consumed through construction and long-range use. From a regional and statewide perspective, the consumption levels will be less than significant. However, any increased use of nonrenewable resources is considered an adverse environmental impact.

The Conservation Chapter has an extensive discussion on water conservation, use of reclaimed water, and recycling to reduce materials going to landfills (per AB 939). While water is a nonrenewable resource, it can be conserved and recycled.

Open space resources will not be adversely affected. Land use and open space policies are intended to maintain and improve existing open space in Downey. Parks will be upgraded and new parks and open space added. The mixed use areas, the historic downtown and the Rockwell site, are designated to have parks. The Rockwell Employees Park will be taken over by the City when Rockwell closes. The Conservation Chapter calls for more street trees which will contribute to the air quality of the region.

The existing flora and fauna in Downey is typical of that found in highly urbanized cities of the region. Urban open space such as parks, golf courses and school grounds is largely composed of introduced trees and lawns.

There are no known rare or endangered species in Downey. Fauna commonly associated with an urban landscape includes rodents and avian species, such as house finches, Brewer's blackbirds, mockingbirds and hummingbirds.

The proposed General Plan involves no potential for any adverse impact, either individually or cumulatively, on wildlife resources (a "de minimis impact").

The Central Ground Water Basin maintains a spreading ground in the San Gabriel River Channel, next to Rio San Gabriel Park. At that point, the natural drainage channel does not have a concrete bottom because it is used as a settlement area. Water is "spread" to percolate into the aquifer and recharge the groundwater. As a result, there are plants and migratory birds in the channel. Since the water spreading is sporadic and controlled by man, this is not considered a natural habitat.

There are river beds on both the east and west boundaries of Downey, the San Gabriel River and the Rio Hondo. Both rivers have concrete bottoms and sides. No diversion of river beds is anticipated.

Mitigation Measures

The Conservation and Open Space/Recreation Chapters contain policies that address natural resources. Relevant policies include:

Conservation Chapter: All policies
Open Space/Recreation Chapter: Policies 7.1.1, 7.2.1, 7.2.2, 7.2.3, 7.2.6

**Conservation Policies**

**The City shall:**

4.1.1. Continue to encourage the conservation of water through the water bill process;

4.1.2 Information shall be made available to users regarding conservation methods.

4.2.1 Examine the feasibility of a reclaimed water system to support fire service; and shall evaluate and participate in the use of reclaimed water for irrigation of public areas and industrial uses;

4.2.2 City facilities shall be designed to conserve water.

4.3.1 Develop standards for water conserving plumbing fixtures in all new construction;

4.3.2 Require water conserving appliances and fixtures in all commercial or industrial developments;

4.3.3 Implement a public information program pertaining to water conservation and recycling issues;

4.3.4 Consider incentive programs for commercial and industrial operations that conserve water;

4.4.1 Significant and mature public and private trees shall be inventoried;

4.4.2 Develop a policy for the protection, replacement and preservation of public and private mature specimen trees.

4.5.1 Develop a policy for planting, removal, replacement and maintenance of trees in street parkways and on public property under City control.

4.6.1 Require recycling in residential, commercial and industrial areas of the city.

**Open Space Policies**

**The City shall:**

7.1.1 Adopt programs to preserve existing open space;

7.2.1 Develop new parks in the areas of greatest need;

7.2.2 Develop a connector bike trail;

7.2.3 Provide additional recreational facilities;

7.2.6 Require large commercial, industrial and residential developments to establish usable open space in their projects.

## NOISE

### Environmental Setting

The existing noise environment is described in the Noise Chapter of the General Plan. The primary noise source in Downey is traffic on the freeways and major and secondary streets in Downey. Railroad and airplane traffic also contribute to the noise levels.

### Environmental Impacts

Implementation of land use policies under the proposed plan will not lead to a noticeable difference in Downey's ambient noise environment. Traffic volumes will not increase significantly on Downey streets; therefore noise levels will not significantly increase. Noise impacts associated with the General Plan are considered less than significant.

The increased population means that more people will be exposed to the city's ambient noise levels. State law requires that all multi-family units be insulated and soundproofed to achieve interior noise levels of 45dB. The General Plan contains a policy to locate noise sensitive uses away from noise sources. A Circulation Chapter policy discourages land uses promoting heavy trucks.

### Mitigation Measures

The Noise, Land Use and Circulation Chapters all contain mitigation measures to protect humans from excess noise. Relevant policies include:

Noise Chapter: All policies
Circulation Chapter: Policy 2.6.2

**Noise Policies**

**The City shall:**

6.1.1 Require noise reduction measures in all new construction where necessary.

6.1.2 Require that noise sensitive land uses be located away from major noise sources.

6.1.3 Establish noise standards of 45 dB interior and 60 dB exterior.

6.2.1 Work with the railroad companies in developing and implementing noise reduction methods in their operations.

6.2.2 Work with the Federal Aviation Administration, the Division of Aeronautics and the Los Angeles County Airport Land Use Commission to develop guidelines for addressing airplane and helicopter noise.

6.3.1 Enforce the existing noise ordinance and revise the ordinance, when necessary, to address changes in technology.

**Circulation Policy**

2.5.2 Land Uses promoting the use of heavy trucks should be discouraged within the City.

## RISK OF UPSET

### Environmental Setting

The Hazardous Waste Management and the Safety Chapters discuss the risk of upset in Downey. The primary potential for any accident is the transport of hazardous materials on the freeways and street, and the generation of them in local commercial and industrial operation.

### Environmental Impacts

The implementation of the proposed General Plan may incrementally increase the risk of upset because future industrial and commercial growth may increase the amount of hazardous substances transported and generated in the city.

Because accident hazards exist, environmental impacts would have to be considered adverse.

### Mitigation Measures

Mitigation Measures concerning risk of upset include the monitoring of toxic and hazardous waste generators. Relevant policies include:

Hazardous Waste Management Chapter: All policies
Safety Chapter: Policy 5.6.1

**Hazardous Waste Management Policies**

**The City shall:**

10.1.1 Sponsor and assist in education and training efforts such as workshops and private industry training in waste reduction disposal.

10.2.1 Establish a Residential Hazardous Waste Management Program by identifying and developing techniques for the collection and disposal of household hazardous wastes.

10.2.2 Promote public information on hazardous waste.

10.3.1 Require existing businesses that transport hazardous waste to develop routing plans.

10.3.2 Limit hazardous waste transportation on city streets to major streets and during non-peak hours.

10.4.1 Inventory, control and clean-up all existing contaminated hazardous waste sites.

10.4.2 The inventory should provide location, type of facility, type and amount of hazardous waste danger to the public and danger to natural resources.

10.4.3 Adopt land use policies for the clean-up of contaminated sites prior to development.

10.5.1 Implement Federal and State legislation regarding hazardous waste treatment facilities.

10.5.2 Increase public education and involvement in the siting and permitting process for on-site hazardous waste recycling and treatment facilities.

10.6.1 To the extent of its legal authority, Downey will require all Federal, State and County facilities, within its jurisdictional boundaries, which generate hazardous wastes, to comply with all applicable regulations.

10.6.2 Require all Federal, State and County facilities to disclose hazardous materials storage and waste disposal quantities.

## POPULATION

### Environmental Setting

The Housing Chapter provides a thorough discussion of demographic characteristics and trends in Downey. The Land Use Chapter, using 1990 census information and the proposed 2010 Land Use Diagram, predicts that Downey's population will increase to about 104,000 persons.

DOWNEY: 2010 Population 104,603
TABLE EIR-7

| Residential Land Use Designation | Density | # of Acres 2010 | Max. # of Units | Population (x 2.71) |
|---|---|---|---|---|
| Low Density | 1-8 units/acre | 3280 | 26,240 | 71,110 |
| Low/Medium Density | 9-17 units/acre | 115 | 1,955 | 5,298 |
| Medium Density | 18-24 units/acre | 371 | 8,904 | 24,130 |
| Mixed Use[9] | | | | |
| Downtown | 24 units/acre | 33.3 | 800 | 2,168 |
| Rockwell | 24 units/acre | 29 | 700 | 1,897 |
| Total | | 3828.3 | 38,599 | 104,603 |

### Environmental Impacts

If all residential areas were developed to capacity, the population would increase to 104,603 persons, approximately a 13% increase. The average household size used for the calculation was 2.71, as estimated in the 1990 Census. Over the twenty years of the plan, this is an increase of 658 persons per year.

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[9] The Mixed Use figures are concept only; the actual acreage allocated to residential use will be determined when the specific plans for the areas are written.

In the proposed plan the medium density acreage has been reduced. Population increase is attributed to larger household size. The average household size in Downey increased from 2.53 in the 1980 to 2.71 in the 1990 Census. This is due to younger families replacing "empty nesters", illegal conversions, and room additions for extended family members.

The 13 percent increase in population is not considered significant because it will occur over a twenty year period. Actual growth should be less since the projection assumes full build-out.

Mitigation Measures

Application of the City's development standards contained in the Land Use Chapter will limit population growth. There are policies to retain large parcel sizes, to combine parcels in the residential specific plan areas and to require apartment standards to have the same open space requirements as Planned Unit Developments. The Housing Chapter contains a policy retaining arbitrary setbacks in neighborhoods, which will limit the size of homes.

Continued pro-active code enforcement will reduce the number of illegal units which contribute to large household size. Relevant policies include:

Land Use Chapter: Policies 1.1.2, 1.1.3, 1.1.4, 1.4.4
Housing Chapter: Policies 3.1.2, 3.2.3

**Land Use Policies**
**The City shall:**

1.1.2 Regulate residential density to reflect minimum lot sizes appropriate for the respective neighborhoods;

1.1.3 Retain the pattern of large residential parcels where appropriate;

1.1.4 Promote property maintenance;

1.4.4 Change development standards as needed.

**Housing Policies**
**The City shall:**

3.1.2 Continue "pro-active" code enforcement programs;

3.2.3 Preserve the arbitrary setbacks provision of the code;

## HOUSING

### Environmental Setting

The Housing Chapter provides a comprehensive discussion of Downy's housing stock, needs and programs.

### Environmental Impacts

Implementation of the General Plan Land Use and Housing Chapters will increase the number of housing units in Downey. Because the City is built-out, much of the growth will result from recycling. Changing the designation of the historic downtown and the Rockwell/L. A. County sites to mixed use, containing residential, also adds to the housing stock. Residential densities have not been changed.

Property maintenance is mentioned throughout the General Plan. Maintaining property will prevent housing stock deterioration. The goals and policies of the Housing Chapter are expected to benefit the community.

### Mitigation Measures

Implementation of the Housing Chapter will assist identified special-needs groups. At the same time, housing and land use policy will preserve the single-family character of Downey. The City will continue to support the Housing Division and maintain existing housing programs. The expected result is higher quality and more comfortable housing for all Downey residents. Relevant policies include:

Housing Chapter: All Policies
Land Use Chapter: Policies 1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.3.1, 1.3.3, 1.4.3,
Design Chapter: 8.1.3

**Housing Policies**

**The City shall:**

3.1.1 Continue aggressive housing rehabilitation programs;

3.1.2 Continue "pro-active" code enforcement programs;

3.2.1 Phase out zone exception cases which have severely impacted residential neighborhoods;

3.2.2 Continue to enforce ordinances which separate residential uses from commercial and office uses;

3.2.3 Preserve the arbitrary setbacks provision of the code;

3.3.1 Annual surveys should be performed, keeping Downey's application fees in parity with surrounding jurisdictions;

3.3.2 Continue the policy of "thirty day turn around" for residential applications which require public hearings;

3.3.3 Continue the policy of supplemental plan checking and inspection during periods of increased building activity. Three week first check and one week recheck is ideal. Twenty four hour turn around for inspection is encouraged.

3.4.1 Residential specific plans should provide specialized development standards for setbacks, lot coverage, garage requirements and property maintenance;

3.4.2 Where possible, residential specific plans should include implementation programs, focussing on funding and incentives encouraging neighborhood improvements;

3.5.1 Encourage housing developers to work with the local community, including making units available to residents;

3.5.2 Encourage the State to make surplus Caltrans property available to residents;

3.5.3 Continue to enforce ordinance provisions limiting the conversion of apartments to condominiums;

3.5.4 Cooperate with Los Angeles Department of Community Development, housing and Urban Development and non profit organizations seeking to expand the supply of affordable housing;

3.5.5 Encourage private lenders to provide alternative financing to make home ownership available to a greater number of households;

3.5.6 Support and encourage sweat equity and limited equity housing programs;

3.6.1 Continue policy of keeping development exactions and fees at parity with surrounding cities;

3.6.2 Mitigation measures should be explored and added to project which do not add substantial costs, either to new residents, or city services;

3.7.1 Continue the 20% housing set aside for low and moderate income families;

3.7.2 Require developers to address housing relocation and replacement issues early in the project development and approval process;

3.7.3 Encourage the redevelopment agency, when assisting in public housing, to participate in rent limitation agreements;

3.8.1 Through density bonuses and fee reductions, encourage affordable housing in planned developments;

3.8.2 Prohibit housing development on land which is environmentally unsuitable;

3.8.3 Continue to work with FEMA to modify the preliminary flooding map. Encourage FEMA to adopt the lowest insurance rates possible;

3.9.1 Encourage the use of barrier-free architecture in new housing developments;

3.9.2 Encourage the construction of senior housing;

3.9.3 Support local, non-profit agencies that serve the homeless;

3.9.4 Support fair housing legislation;

3.9.5 Support legislation in Congress to make prepayment of HUD loans more difficult;

3.9.6 Encourage non-profit groups to purchase the 62 unit federally assisted project if the present owners chose to prepay the HUD loan.

**Land Use Policies**

**The City shall:**

1.1.1 Encourage owner-occupied housing development;

1.1.2 Regulate residential density;

1.1.3 Retain the pattern of large residential parcels where appropriate;

1.1.4 Promote property maintenance;

1.3.1 Encourage quality construction on development as properties recycle;

1.3.3 Create areas for mixed land uses;

1.4.3 Revise the zoning ordinance to include development and performance standards;

**Design Policy**

**The City shall:**

8.1.3 Encourage and develop programs to preserve the integrity of neighborhoods by evaluating the proportional relationship between structures.

## PUBLIC SERVICES

### Environmental Setting

The Safety Chapter of the General Plan discusses the Fire and Police Protection available to Downey residents; the Open Space/Recreation Chapter discusses school closures and parks and recreational facilities, the Circulation Chapter discusses street maintenance.

### Environmental Impacts

Increases in population due to build-out of the proposed Land Use Diagram will increase demand for public services. New construction and the replacement of "empty nesters" with young families means more school age children. Existing school facilities need to be maintained and might have to be increased. Police and fire services might have to be increased. There are no plans to increase either police or fire staff at this time. To provide additional services to meet the demands of new development, various types of fees have been proposed.

Open Space and recreation facilities in Downey consist of parks, utility easements, river beds, school grounds, cemetery and golf courses. The Open Space/Recreation Chapter also calls for additional open space in large commercial and industrial developments, at the Rockwell site, the historic downtown area and City acquisition of the Rockwell Employees Park. The Open Space Chapter discusses the acquisition of school land for open space should the school sell off more properties. It also discusses public facilities such as the Downey Theater, Art Museum and a future multi-purpose center.

### Mitigation Measures

Measures intended to reduce impacts on public services are discussed in the Safety Chapter, The Open Space/Recreation Chapter, and the Circulation Chapter. Relevant policies include:

Safety Chapter: Policy 5.4.1
Open Space/Recreation Chapter: Policies 7.1.1, 7.2.1, 7.4.3, 7.5.1
Circulation Chapter: Policies 2.1.1, 2.2.1, 2.3.1, 2.8.1

**Safety Policy**

**The City shall:**

5.4.1 The City shall reduce crime in Downey.

**Open Space/Recreation Policies**

**The City shall:**

7.1.1 The City shall adopt programs to preserve existing open space.

7.2.1 The City shall develop new parks in the areas of greatest need.

7.4.3 The City shall adopt ordinances preserving part of each public school property as open space, should any existing schools be developed for another use.

7.5.1 The City shall continue to support cultural events and facilities in Downey.

**Circulation Policies**

**The City shall:**

2.1.1 The City shall comply with provisions of the Congestion Management Plan.

2.2.1 The City shall promote traffic safety by maintaining and improving the level of service on major streets, where possible.

2.3.1 The City shall consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped and the general public.

2.8.1 The City's seven-year Capital Improvements Program should address the following improvements, as necessary:

Street systems

Sewer facilities

Water supply

Drainage facilities

Other major capital investments necessary to sustain the City's development and operation.

## UTILITIES

### Environmental Setting

Downey's water and storm drain systems are discussed elsewhere in this report. Other utilities are: electricity, natural gas, telephone, sewer and solid waste disposal.

### Environmental Impacts

Replies to the Notice of Preparation of this EIR indicate that there will be adequate supplies of electricity, natural gas and telephone service when the 2010 General Plan is fully implemented. Solid waste disposal is impacted by the lack of available landfills. AB 939 requires Cities to reduce solid waste by 50% by the year 2000. The Conservation Chapter has a policy stating the City shall comply with the requirement.

There is a policy in the Conservation Chapter requiring recycling in residential, commercial and industrial areas of the City. A Land Use Chapter program requires new developments to provide adequate on-site storage areas for collecting recyclable materials.

The City recently completed a sewer capacity study & Capitol Improvements Program for sewers. Over-capacity sewer problems have been cured; the CIP concentrates on marginal capacity and near capacity sewers. 2010 Land Use figures were used. A policy in the Circulation Chapter addresses sewer facilities.

### Mitigation Measures

Relevant policies are:

Conservation Chapter: Policy 4.6.1
Land Use Chapter: Policy 1.4.4
Circulation Chapter: Policy 2.8.1

**Conservation Policy**

**The City shall:**

4.6.1 Provide information to citizens about recycling and the need to recycle waste;

**Land Use Policy**

**The City shall:**

1.4.4 Change development standards as needed;

**Circulation Policy**

**The City shall:**

2.8.1 The City's seven-year Capital Improvements Program should address the following improvements, as necessary:

Street systems

Sewer facilities

Water supply

Drainage facilities

Other major capital investments necessary to sustain the City's development and operation.

## CULTURAL RESOURCES

### Environmental Setting

A description of historical and archeological resources in Downey is included in the Open Space/Recreation Chapter.

### Environmental Impacts

Implementation of the General plan will not adversely affect historical resources in Downey. The plan does not contain any specific actions which would endanger historic buildings in the City; in fact, it contains a policy to encourage owners to preserve significant historic resources. An historic interpretative center is recommended for the historic downtown area and a specific plan for the downtown area is intended to preserve the unique character of the area. Impacts are not considered significant.

### Mitigation Measures

Potential impacts on cultural resources must be analyzed on a case-by-case basis. Relevant policies include:

Open Space/Recreation Chapter: Policies 7.5.1, 7.6.1, 7.6.2

Land Use Chapter: Policy 1.3.2

**Open Space/Recreation Policies**

**The City shall:**

7.5.1 Continue to support cultural events and facilities in Downey.

7.6.1 Work with property owners to preserve significant historical resources.

7.6.2 Develop a process for identifying significant historical and archeological resources.

**Land Use Policy**

**The City shall:**

1.3.2 Encourage adaptive re-use of older structures.

## Impacts that Can Be Mitigated

Even with the incorporation of mitigation measures, long-term implementation of the General Plan may result in the following environmental impacts, which can be mitigated by the policies of the General Plan.

**LAND USE:** Residential densities have not been changed. If maximum densities were realized, the proposed Plan could result in a 13-percent increase in population. Impacts associated with this overall increase over existing conditions (e.g., traffic, congestion, housing) are mitigated by the policies of the Plan.

**CIRCULATION:** New development under the General Plan and increased population in and around Downey will increase traffic on area roadways. Traffic impacts will be reduced if the goals and policies of the Circulation Element are implemented.

**EARTH:** Because the proposed General Plan could result in more people residing in Downey, the exposure of more people to earthquake hazards is considered an inevitable impact.

**WATER:** The proposed General Plan may result in more people living and working within the City's flood area. There are flooding impacts that will be mitigated with compliance of the FEMA ordinance. Further mitigation will occur when the Army Corps of Engineers releases a new flood map.

**NATURAL RESOURCES:** Although natural resource consumption under the Plan is considered less than significant from a regional perspective, any increased use of nonrenewable resources is considered an impact on the environment.

**RISK OF UPSET:** Future industrial and commercial growth under the proposed General Plan may increase the amount of hazardous substances transported and generated in the City. Because environmental impacts would be the result of accidents, these impacts would be mitigated by the policies of the Hazardous Waste Management Chapter.

**POPULATION:** The proposed General Plan, under full build-out, could result in an approximate 13-percent increase in Downey's population. The anticipated increase is considered an impact because more people can be expected to result in more congestion, traffic and more air pollution.

**PUBLIC SERVICES:** Greater demands on public services (police, fire, schools and public maintenance) can be expected at full build-out. A significant change in the demand of these services is not seen at this time but will occur over the twenty years of the Plan.

**UTILITIES:** Sewers may be affected by the increased population. Any increase in utility use can be considered an impact since the result is increased pollution.

Effects Found Not to be Significant

The environmental analysis undertaken for this EIR, including the initial study prepared for the proposed General Plan, concluded that implementation of the Plan would pose no significant impacts on the following environmental resources:

> Housing: The proposed General Plan would not increase the number of multi-family units. This would retain the single-family character of Downey. It will have beneficial effects on traffic, air quality and consumption of resources.
>
> Noise: Anticipated long-term increases in traffic volumes on major roadways will result in minor increases in noise; however noise impacts have been mitigated to being less than significant.
>
> Light & Glare: Potential light and glare impacts will be analyzed on a project-by-project basis. Mitigation measures will be taken to help ensure that such impacts remain at a minimal level.
>
> Cultural Resources: Certain historical resources have been identified and policies adopted to preserve them; archeological resources will also be identified and preserved. This is considered a beneficial effect to the character of Downey.
>
> Energy: The increased demand for energy should be a small proportion of regional growth and should not represent a significantly different amount of energy use compared to other cities in the region.
>
> Plant & Animal Life: No rare or endangered plant or animal species are known to exist in Downey. The City is built-out, but the Conservation and Open Space/Recreation Chapters recognize the need to preserve and maintain existing plant and animal life.
>
> Human Health: Goals and policies throughout the General Plan emphasize the protection of all residents from the hazards associated with living in an urban environment such as Downey.
>
> Aesthetics: The Design Chapter of the General Plan ensures that aesthetics will be preserved and enhanced.

Recreation: Potential impacts on recreation under the proposed Plan will be mitigated by goals and policies throughout the elements, particularly the Conservation and Open Space/Recreation Chapters.

## ANALYSIS OF LONG-TERM AND CUMULATIVE EFFECTS

### Relationship Between Local Short-Term Uses and Maintenance and Enhancement of Long-Term Productivity

As indicated throughout this EIR, the proposed project will be built-out over time, and completed in 2010. All impacts are considered incremental and long-term rather than immediate. By identifying the potential environmental impacts early in the planning process, the City and other responsible government agencies can anticipate the impacts and take measures to reduce the impacts to acceptable levels.

The General Plan allows for reasonable growth in response to regional pressures for housing and business opportunities while, at the same time, controlling growth within the City's ability to provide necessary services and infrastructure.

### Any Significant Irreversible Environmental Changes Which Would Be Involved in the Proposed Action should it be Implemented

As development occurs throughout Downey, building materials and energy resources will be irretrievably committed to long-term uses. Measures can be taken to conserve energy resources, and in some instances, building materials can be recycled through development activity. In general, however, use of these resources will reduce long-term availability. The impact will not be significant in either a local, regional, or statewide sense because all construction activity involves the irretrievable commitment of resources. New resources are discovered to replace those found to be in short supply. However, the City should continue to work with developers to conserve resources.

### Growth-Inducing Effects

The Downey General Plan does not in itself induce growth, in other words, it does not cause growth to occur. The Plan is designed to accommodate and control growth.

Implementation of the proposed General Plan will lead to an increase in the City's residential population and will lead to continued development and new types of growth in the industrial and commercial sectors. It will enable the Rockwell site and the historic downtown to be developed in an orderly and well-planned manner. Growth through development should augment the City's tax base and should provide adequate funds to finance necessary service increases.

The environmental effects related to individual projects will need to be assessed when such projects are proposed. The City will impose conditions designed to reduce environmental effects. It is a policy of the Plan to monitor the Plan regularly and update it as needed. This will assist in the early identification of necessary mitigation measures.

## Cumulative Impacts

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (Section 15355). CEQA Guidelines further note that the individual effects may result from an individual project, or the impacts may be related to implementation of a number of probable future projects.

Growth in Downey, combined with anticipated growth throughout the Los Angeles region, will add to regional environmental problems. SCAG forecasts that the Southern California population will reach 22 million by the year 2010. In Los Angeles County, and Downey in particular, the following issues could be impacted significantly by continued growth: water quality and quantity; air quality; transportation; wastewater treatment and disposal; and employment.

These concerns are far-ranging issues that require regional solutions. A number of regional agencies (SCAQMD, SCAG, LACTC, CalTrans) are responsible for coordinating efforts to mitigate regional environmental concerns.

As indicated in this EIR, the goals and policies contained in the Downey Comprehensive General Plan Update call for the City to participate in regional resource conservation and other environmental programs. Implementation of the goals and policies will help mitigate the anticipated cumulative environmental effects.

## REFERENCES

## PERSONS/AGENCIES CONTACTED

### City of Downey

**City Manager's Office**

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**Police Department**

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Market Profiles and The Synthesis Group, Economic Consultants

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## COMMENTS AND RESPONSES

In accordance with sections 15088, 15089 and 15121 of the California Environmental Quality Act's Guidelines, the city of Downey has prepared the Final Environmental Impact Report (FEIR) for the Downey Comprehensive General Plan Update. The Final EIR consists of this Comments and Responses Section and the Draft EIR. The Draft EIR was circulated to every community that borders Downey and all affected public agencies on October 11, 1991. It was also made available for public review from October 11, 1991 to January 22, 1992. Any additional City recommendations or requirements advanced during the public hearing process, including the Findings of Fact, will make up the Final EIR.

The following is an excerpt from the California Environmental Quality Act (CEQA) Guidelines, Section 15121: "The Final EIR shall consist of:

(a) The Draft EIR or a revision of the Draft.

(b) Comments and recommendations received on the Draft EIR either verbatim or in summary.

(c) A list of persons, organizations and public agencies commenting on the Draft EIR.

(d) The responses of the lead agency to significant environmental points raised in the review and consultation process.

The comment letters and comments made in the public hearing are followed by the City's responses. Also included, with the City's comments, are changes made by the planning Commission to General Plan policies.

### COMMENTS RECEIVED ON THE DRAFT EIR

| | LIST OF COMMENTS | Responses |
|---|---|---|
| 1. | California Department of Transportation | Pages 3-4 |
| 2. | County of Los Angeles Department of Public Works | Pages 5-7 |
| 3. | City of South Gate | Pages 8-10 |
| 4. | South Coast Air Quality Management District | Pages 11-20 |
| 5. | Southern California Association of Governments | Pages 21-30 |
| 6. | Letters from Christopher Sutton, 12/19/91 & 1/22/92 | Pages 31-40 |
| 7. | Comments made at the 1/22/92 Planning Commission meeting by Dr. Sullivan and Mr. Sutton | Pages 41-43 |
| 8. | Changes made by the Planning Commission 1/22/92 | Pages 44-45 |

STATE OF CALIFORNIA PETE WILSON, *Governor*

**GOVERNOR'S OFFICE OF PLANNING AND RESEARCH**
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PLANNING

Dec 02, 1991

RONALD YOSHIKI
CITY OF DOWNEY
11111 BROOKSHIRE AVENUE
DOWNEY, CA 90241

Subject: DOWNEY COMPREHENSIVE GENERAL PLAN UPDATE
SCH # 91081027

Dear RONALD YOSHIKI:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Tom Loftus at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

David C. Nunenkamp
Deputy Director, Permit Assistance

State of California

Business, Tr ortation and Housing Agency

**COMMENT NO. 1**

# Memorandum

To :

Mr. Tom Loftus
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Date : November 12, 1991

File No.:

IGR/CEQA
City of Downey
DEIR
Downey Comprehensive
General Update
Vic. LA-5/605/710

From : Wilford Melton - District 7
DEPARTMENT OF TRANSPORTATION

Subject : Project Review Comments

SCH No.91081027

Caltrans has reviewed the above-referenced document. Based on the information received, we have the following comments:

It does not address the Existing Levels of Service, Future Levels of Service for the year 2010 or potential mitigation measures.

The Report does discuss the City of Downeys' positive outlook towards developing a Congestion Management Plan in the Future.

For record continuity, we make reference to our prior letter dated August 16, 1991 addressing Downey Comprehensive General Plan Update, which gives items which should be covered in your Final EIR but are not covered in this DEIR. A copy of that communication is included in your report.

If you have any questions regarding this response, please call me at (213) 897-1338.

WILFORD MELTON
IGR/CEQA Coordinator
Advance Planning Branch

nh
cc: Mary Martineau ✓
City of Downey
11111 Brookshire Av
Downey, CA 90241

**RECEIVED**

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**PLANNING**

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## RESPONSE NO. 1

California Department of Transportation

1a. Existing and Future Levels of Service are included in the final EIR. The City of Downey believes that future traffic figures may be skewed by the Century Freeway which has not been completed. Existing traffic patterns have been disrupted by the construction. In addition, Caltrans is not predicting how much traffic might be diverted by the new freeway. For these reasons, mitigation includes Program 2.2.1.2 of the Circulation Chapter requiring a new traffic study after completion of the freeway.

1b. Tables II-4 and II-5 in the Circulation Chapter contain trip generation/distribution.

1c. Current ADT is illustrated in Exhibit II-4, Future ADT's in Exhibit II-8 and ICU's in Table II-2, all in the Circulation Chapter.

1d. Congestion relief programs are in the Circulation Chapter and are related to policies in the Circulation Chapter and the Final EIR. Programs include:

2.1.1.1
2.1.1.2
2.1.1.3
2.1.1.4
2.1.1.5
2.2.1.2
2.3.1.3
2.3.1.4

1e. Program 2.1.1.4 in the Circulation Chapter requires new developments and expansions of existing developments to pay the cost of circulation improvements needed to serve them.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

**COMMENT NO. 2**

November 21, 1991

IN REPLY PLEASE REFER TO FILE P-6

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PLANNING

Mr. Ronald M. Yoshiki, City Planner
City of Downey
11111 Brookshire Avenue
Downey, CA 90241

Dear Mr. Yoshiki:

RESPONSE TO A DRAFT ENVIRONMENTAL IMPACT REPORT
CITY OF DOWNEY COMPREHENSIVE GENERAL PLAN UPDATE

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the City of Downey Comprehensive General Plan Update. We have reviewed the DEIR and offer the following comments:

DRAINAGE PLANNING

Currently we do not have any storm drain projects under study in the project area. However, your City has identified three flooding problems within the project area. Enclosed is Quadrangle Sheet No. 9 showing Deficiencies Nos. 9-4.22, 9-1.34, and 10-2.05. Your City should consider including measures to accommodate these drainage needs as part of their General Plan Update.

If you have any questions regarding these comments, please contact Mr. Richard Yribe of our Drainage Planning Section at (818) 458-4310.

WASTE MANAGEMENT

Los Angeles County is experiencing a shortage in solid waste disposal capacity this year. The proposed development will adversely impact disposal facilities. To alleviate this crisis, the California Integrated Waste Management Act of 1989 requires development of programs for diverting 25 percent of the solid waste stream from landfills and transformation facilities by 1995 and 50 percent by the year 2000. To meet these mandates, the DEIR should identify waste quantities that will be generated along with mitigation measures of waste reduction, recycling, and composting programs. Also, the DEIR should identify development standards to provide adequate "storage areas" within each type of development group for collecting recyclable materials.

The existing hazardous waste management facilities (HWM) in this County are inadequate to handle the hazardous waste currently being generated. Future residential development will generate hazardous waste, which could adversely impact existing HWM facilities. The DEIR should address this issue and provide mitigation measures.

The General Plan Update should recognize the need to comply with the Federal Clean Water Act and the NPDES Permit issued to Los Angeles County and Co-Permittees for Stormwater/Urban Runoff Discharge. Compliance with these regulations will be required.

Should any operations at a future facility include installation of underground storage tanks and/or industrial waste discharge, this office will have to be contacted for issuance of the necessary permit(s).

Any mitigation measure monitoring program performed by the Los Angeles County Department of Public Works, Waste Management Division, will require a funding account be established by the project proponent to pay for the required services. The amount of necessary funds will be determined at the time monitoring will be performed. Waste Management Division must be contacted to establish the funding account.

If you have any questions regarding these comments, please contact Mr. Michael Bohlander of our Waste Management Division at (818) 458-3562. Questions regarding the environmental reviewing process of this Department can be directed to Ms. Clarice Nash at the above mailing address or at (818) 458-4334.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

CARL L. BLUM
Assistant Deputy Director
Planning Division

MA:aa
WP/.10

Enc.

## RESPONSE NO. 2

County of Los Angeles Department of Public Works

2a. Drainage Planning-The County cites three deficiencies 1) Downey Avenue north of Imperial Highway 2) Stewart & Gray between Brookshire and Bellflower and 3) Paramount north of Firestone. The Safety Chapter, on page V-17 discusses 7 storm drain deficiencies, including Stewart & Gray Road east of Brookshire Avenue to Bellflower Boulevard. In addition, Policy 5.2.3 states: "The City shall evaluate and establish a program regarding drainage systems as they pertain to future growth".

2b. Waste Management-Page IV-22 of the Conservation Chapter identifies waste quantities that will be generated. Policy 4.6.1 requires recycling in residential, commercial and industrial areas of the city. Program 4.6.1.5 of the Conservation chapter requires new development to provide adequate on-site storage areas for collecting recyclable materials. Policy 10.2.1 of the Hazardous Waste Management Chapter states "The City shall establish a Residential Hazardous Waste Management Program by identifying and developing techniques for the collection and disposal of household hazardous wastes." Program 10.2.2.1 states "The City shall designate the City newsletter, The Communicator, a central resource/information system for the dissemination of accurate disposal information, education on waste minimization, and other waste management practices."

City of South Gate

8650 CALIFORNIA AVENUE • SOUTH GATE, CA 90280-3075 • (213) 563-9529
FAX (213) 567-0725

DEPARTMENT OF COMMUNITY DEVELOPMENT
ANDREW G. PASMANT
DIRECTOR

**COMMENT NO. 3**

November 25, 1991

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NOV 27 1991
PLANNING

City of Downey
11111 Brookshire Avenue
Downey, CA 90241

Attn: Ronald M. Yoshiki, City Planner/Assistant Director of Community Development

**SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) GENERAL PLAN UPDATE (SCH# 91081027)**

Dear Mr. Yoshiki:

The City of South Gate appreciates having had the opportunity to review the above referenced document. The City has only a few minor comments regarding the DEIR. First, on Page EIR-17 the statement is made that "Firestone Boulevard, which now has a land use designation of manufacturing, commercial and multi-family is proposed to be changed to a commercial designation". Given the text of the report, it is presumed that the 2010 Plan designation for Firestone Boulevard is commercial. However, this is not reflected on either the "General Plan Diagram 2010" or the "Changes to the Downey Land Use Diagram 2010". (The graphics in the text of the DEIR have not been labeled). As such, the final EIR should either clarify the statement or revise the graphics. Second, on Page EIR-39 the summation of land use impacts projects an eight percent (8%) population growth while the population discussion states a ten percent (10%) population growth factor. It would seem the percentages should be the same in both instances.

The City would appreciate receiving a copy of the Final EIR. Additionally, the City requests notification of the pending public hearing regarding this matter. Notification should include a copy of the Staff report and recommendations, draft resolutions and other pertinent information regarding the adoption and certification of the EIR (i.e., Statement of Overriding Consideration).

Notification and requested materials should be sent to the address listed below:

City of South Gate
Department of Community Development
8650 California Avenue
South Gate, CA 90280
Attn: Andrew G. Pasmant, Director

Should you have any questions regarding this matter, please contact my Staff member Karen Bell, Senior Planner at (213) 563-9542.

Sincerely,

Andrew G. Pasmant
Director of Community Development

AGP/KB:lah

cc: Karen Bell, Senior Planner

a:yoshiki.agp

## RESPONSE NO. 3

City of South Gate

3a. The exhibit has been changed to reflect the commercial designation on Firestone.

3b. The proposed population increase, at build-out, is 13%; all references to population are consistent in the Final EIR.

South Coast
AIR QUALITY MANAGEMENT DISTRICT
21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (714) 396-2000

**COMMENT NO. 4** November 27, 1991

Ms. Mary Martineau
City of Downey
11111 Brookshire Avenue
Post Office Box 607
Downey, CA 90241-0607

Dear Ms. Martineau:

**Subject: Draft EIR: City of Downey Draft General Plan Update.**

**SCQAMD # LAC911018-03.**

---

The South Coast Air Quality Management District (District) has reviewed the Draft Environmental Impact Report (Draft EIR) for the City of Downey Draft General Plan Update. The District's review of the Draft EIR indicates that the project has the potential to generate significant air quality impacts which have not been adequately addressed.

The District is responsible for adopting, implementing, and enforcing air quality regulations in the South Coast Air Basin (Basin), which includes the project area. As a responsible agency, the District reviews and analyzes environmental documents for projects that may generate significant adverse air quality impacts.

Implementation of the General Plan may result in adverse environmental impacts due to its scope and long-term nature. The District's comments are intended to advise the City of Downey in addressing and mitigating those impacts. The attached staff assessment provides a detailed discussion of the District's analysis of the Draft EIR. Attachment 2 contains a list of mitigation measures which the SCAQMD recommends be incorporated into the General Plan to reduce project emissions.

The District appreciates the opportunity to comment on the proposed General Plan Update and looks forward to receiving a response to our comments prior to the public hearing. If you have any questions regarding these comments, please contact Connie Day, Program Supervisor, at (714) 396-3055.

Sincerely,

Cindy S. Greenwald
Planning Manager
Office of Planning and Rules

CSG:CAD:TS:PF
Attachment

# SCAQMD ASSESSMENT
# OF
# THE PROPOSED GENERAL PLAN UPDATE
# CITY OF DOWNEY

## Project Description

The Draft General Plan Update of the City of Downey proposes goals, policies and programs for the planned development of the city during the next 20 years. All existing General Plan Elements will be updated, while a new Air Quality Element will be added in 1992. Implementation of the General Plan policies will result in changes to the configuration of land uses at buildout. Land designated for office uses will increase from 117 to 168 acres. Land for commercial uses will decrease from 456 to 349 acres. Land for manufacturing uses will decrease from 529 to 373 acres. Land used for housing will remain at 3,800 acres. In addition, 146 acres are being proposed as mixed commercial and manufacturing areas, and 359 acres as mixed residential, commercial and manufacturing areas.

## Air Quality Setting

The Draft EIR does not provide the air quality setting describing the environment in the vicinity of the project, from both a local and regional perspective, as required by the California Environmental Quality Act (CEQA). Section 15125 of the State CEQA Guidelines specifically requires that "the knowledge of the regional environmental setting is critical to the assessment of environmental impacts." The Final EIR must, therefore include the air quality setting, to be deemed "sufficient" under CEQA requirements.

The District's Lynwood air quality monitoring station is the closest and the most appropriate monitoring station for purposes of this EIR. According to air quality monitoring conducted at Lynwood in 1990, ozone levels exceeded the federal and state standards on 3 and 11 days respectively, carbon monoxide levels exceeded the federal and state 8-hour standards on 42 and 44 days respectively, and the federal nitrogen dioxide and sulfur dioxide standards were not exceeded. PM10 levels were not measured at Lynwood. A copy of the air quality monitoring data for 1990 is attached for your use in the Final EIR.

## Construction Related Air Quality Impacts

Implementation of the General Plan will cause an increase in fugitive dust emissions mainly due to grading and construction activities. The proposed General Plan policies include dust suppression measures to reduce emissions from construction activities. However, the potential for emissions exceeding the District's threshold levels has not been addressed and should be analyzed in the Final EIR. Construction emissions should be mitigated through General Plan programs and a commitment to apply standard conditions of approval on projects. The Final EIR should, as a policy requirement, require all development projects to adhere to construction schedules for reducing construction related emissions.

Operation related air quality impacts are primarily due to increased vehicular traffic resulting from the implementation of the General Plan policies. The Draft EIR assumes that the inclusion of transportation demand management (TDM) policies in the General Plan may improve the level of service (LOS) at major intersections. The Final EIR must ensure that the TDM programs are implemented according to an implementation schedule. The Final EIR should also include additional mitigation measures, besides those proposed in the Draft EIR, for reducing emissions due to vehicle miles traveled (VMT) and highway congestion (see Attachment 1).

**Cumulative Impacts**

The Draft EIR indicates at page 17-9, that the City is expected "to capitalize on the four freeways that virtually surround the community." The Draft EIR also refers to opportunities offered by Downey's location close to the freeways. However, the capitalization on these "freeway opportunities" is not explained, and should be addressed in the Final EIR. For example, the potential carbon monoxide concentrations from freeway traffic, should be discussed, along with the need to work closely with Caltrans to reduce freeway-related impacts. The transit improvements proposed in the Draft EIR, should be accompanied by an implementation schedule.

**Congestion Management**

Street improvements proposed in the Draft EIR are expected to ensure a minimum LOS E for highway segments and key road intersections. A schedule for completing these street improvements should be provided in the Final EIR. Contractual arrangements with other governmental agencies such as Caltrans and Los Angeles County, which are required before street improvements can be implemented, should be discussed to ensure that the improvements are completed as scheduled.

The Draft EIR also advocates programs such as improved transit plans and preferential parking for ridesharers to achieve a higher average vehicular ridership (AVR) of 1.5. In order to reach the AVR target expeditiously, the Final EIR must address the implementation of these programs and ensure their completion.

**Proposed Air Quality Element**

The Draft EIR states that the City of Downey is committed to adopting an Air Quality Element by December 31, 1992, the deadline stipulated by the AQMP. In order to ensure that air quality goals are pursued while the Air Quality Element is being prepared, the City's air quality objectives, goals and policies should be included as part of the current General Plan Update. Such a planning effort would also prevent the occurrence of potential inconsistencies among General Plan Elements, and thus avoid revisions to the General Plan Elements in 1992. District staff should be contacted, if needed, for the preparatory work on the Air Quality Element.

**Mitigation Plan**

The Draft EIR has not analyzed a General Plan strategy to mitigate the air quality impacts associated with General Plan policies. A commitment to implement policies and programs through project requirements should be analyzed in the Final EIR. The monitoring of the air quality requirements must be ensured through standard conditions of approval for all projects. Without a compliance schedule which is linked to completion dates and performance standards, impact mitigation may be difficult to enforce and monitor. The Final EIR must ensure that compliance is achieved through enforceable conditions of project approval that can be monitored regularly.

**Conclusion**

Construction emissions caused by the implementation of the General Plan have not been addressed in the Draft EIR. General Plan programs and a commitment to apply standard conditions of approval on projects should be used to reduce construction and operational emissions. The Final EIR should, as a policy requirement, recommend construction schedules for all projects to prevent construction emissions from exceeding the District's threshold levels. The Final EIR must analyze the potential for reducing impacts from the adjacent freeways through programs like transit improvements, park-and ride facilities, transit information centers and public outreach efforts. The increased number of office and mixed use development proposed in the General Plan is the main strategy for reducing VMT. The strategy must include an implementation schedule to ensure that the trip reduction programs for those projects are completed as scheduled

# ATTACHMENT 2
# MITIGATION MEASURES
# THE CITY OF DOWNEY DRAFT GENERAL PLAN UPDATE

General Plan programs should ensure the implementation of the following mitigation measures as standard conditions of project approval.

1. *Minimize Construction Activity Emissions:*
   - Water the site and clean all equipment in the morning and evening.
   - Schedule construction activity during off-peak hours and require a phased-schedule of construction to even out emission peaks.
   - Remove silt by paving construction roads, sweeping streets, and washing trucks leaving construction site.
   - Suspend grading operations during first and second stage smog alerts.
   - Maintain construction equipment engines by keeping them tuned.
   - Use low-sulfur fuel for equipment.
   - Use existing power sources at project sites from the beginning of project construction. Avoid using temporary power generation.

2. *Reduce Construction-Related Traffic Congestion:*
   - Provide rideshare and transit incentives for construction personnel.
   - Configure construction parking to minimize traffic interferences.
   - Minimize obstruction of through traffic lanes.
   - Provide a flagperson to guide the traffic properly.
   - Schedule operations affecting traffic for off-peak hours.

3. *Limit Emissions from Vehicle Trips:*
   - Schedule goods movements for off-peak traffic hours.
   - Provide local shuttle and regional transit systems, transit shelters, bicycle lanes, storage areas and amenities, and ensure efficient parking management.
   - Provide dedicated turn lanes as appropriate.
   - Ensure traffic signal synchronization.
   - Encourage the use of clean fuels.
   - Provide park-and-ride facilities.
   - Provide preferential parking to high occupancy vehicles and shuttle services; and charge parking lot fees on low occupancy vehicles.
   - Provide temporary roadway controls such as one-way streets at peak-hours; and install directional traffic signs; and manage street intersections to improve level of service.
   - Provide recharge facilities for electric vehicles at commercial and industrial sites.

4. *Maximize Energy Conservation:*
   - Landscape with native drought-resistant species to reduce water consumption.
   - Improve thermal integrity of structures, and reduce thermal load with automated time clocks or occupant sensors.
   - Introduce efficient heating and other appliances.
   - Incorporate appropriate passive solar design.
   - Ensure proper sealing of all buildings.

5. *Limit Emissions from Architectural Coatings and Asphalt Use:*
   - o Nonsolvent-based coatings should be used on buildings wherever feasible.
   - o Use of high-solid or water-based coatings should be encouraged.

ATTACHMENT 1

## 1990 AIR QUALITY DATA
## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

| Source/ Receptor Area No. | Location of Air Monitoring Station | Carbon Monoxide | | | | | | Ozone | | | Nitrogen Dioxide | | | | Sulfur Dioxide | | | | | Visibility | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. Days Standard Exceeded | | | | | No. Days Standard Exceeded | | | Average Compared to Federal Standard[a)] | | No. Days Std. Exc'd. | | | Average Compared to Federal Standard.[b)] | No. Days Std. Exc'd.[c)] | | | |
| | | Max. Conc. in PPM 1-Hour | Max. Conc. in PPM 8-Hour | Federal ≥ 9.5 PPM 8-Hr. | > 35 PPM 1-Hr. | State ≥ 9.1 PPM 8-Hr. | > 20 PPM 1-Hr. | Max. Conc. in PPM 1-Hour | Federal > .12 PPM 1-Hour | State > .09 PPM 1-Hour | Max. Conc. in PPM 1-Hour | AAM in PPM | % Above Std. | State > .25 PPM 1-Hour | Max. Conc. in PPM 1-Hour | Max. Conc. in PPM 24-hour | AAM in PPM | Federal > .14 PPM 24-Hr. | State > .25/ ≥ .05 PPM 1/24-Hr.[d)] | Location | Days not Meeting State Std.[e)] |
| 1 | Los Angeles | 13 | 9.9 | 1 | 0 | 1 | 0 | .20 | 32 | 70 | .28 | .0467 | 0 | 3 | .02 | .013 | .0017 | 0 | 0/0 | Los Angeles | 154 |
| 2 | W. Los Angeles | 15 | 8.0 | 0 | 0 | 0 | 0 | .16 | 8 | 30 | .20 | .0324 | 0 | 0 | .02* | .009* | .0021* | 0* | 0/0* | International | |
| 3 | Hawthorne | 19 | 12.7 | 10 | 0 | 11 | 0 | .10 | 0 | 3 | .23 | .0339 | 0 | 0 | .31 | .035 | .0035 | 0 | 1/0 | | |
| 4 | Long Beach | 11 | 9.1 | 0 | 0 | 1 | 0 | .12 | 0 | 5 | .27 | .0393 | 0 | 1 | .05 | .013 | .0031 | 0 | 0/0 | Long Beach | 155 |
| 5 | Whittier | 12 | 9.0 | 0 | 0 | 0 | 0 | .19 | 21 | 47 | .23 | .0428 | 0 | 0 | .04 | .009 | .0016 | 0 | 0/0 | Airport | |
| 6 | Reseda | 19 | 14.9 | 10 | 0 | 11 | 0 | .19 | 41 | 108 | .19 | .0340 | 0 | 0 | .02* | .010* | .0015* | 0* | 0/0* | | |
| 7 | Burbank | 16 | 13.0 | 8 | 0 | 8 | 0 | .20 | 40 | 95 | .23 | .0479 | 0 | 0 | .02 | .011 | .0018 | 0 | 0/0 | Burbank | 180 |
| 8 | Pasadena | 16 | 10.0 | 1 | 0 | 1 | 0 | .26 | 69 | 118 | .23 | .0474 | 0 | 0 | .02* | .008* | .0015* | 0* | 0/0* | Airport | |
| 9 | Azusa | 7 | 5.1 | 0 | 0 | 0 | 0 | .23 | 84 | 133 | .21 | .0410 | 0 | 0 | .03* | .008* | .0011* | 0* | 0/0* | | |
| 9 | Glendora | NM | NM | NM | NM | NM | NM | .29 | 103 | 147 | .19 | .0377 | 0 | 0 | NM | NM | NM | NM | NM | | |
| 10 | Pomona | 13 | 7.5 | 0 | 0 | 0 | 0 | .24 | 60 | 104 | .21 | .0555 | 3.7 | 0 | NM | NM | NM | NM | NM | | |
| 11 | Pico Rivera | 13 | 9.4 | 1 | 0 | 1 | 0 | .19 | 43 | 85 | .27 | .0499 | 0 | 2 | .04* | .014* | .0043* | 0* | 0/0* | | |
| 12 | Lynwood | 24 | 16.8 | 42 | 0 | 44 | 7 | .15 | 3 | 11 | .26 | .0408 | 0 | 1 | .04 | .012 | .0033 | 0 | 0/0 | William J. Fox | 14 |
| 13 | Santa Clarita | 11 | 4.6 | 0 | 0 | 0 | 0 | .23 | 62 | 115 | .15 | .0316 | 0 | 0 | .01* | .004* | .0009* | 0* | 0/0* | Airport | |
| 14 | Lancaster[f)] | 11 | 8.3 | 0 | 0 | 0 | 0 | .15 | 7 | 52 | .09 | .0200 | 0 | 0 | NM | NM | NM | NM | NM | (Lancaster) | |
| 16 | La Habra | 19 | 9.6 | 2 | 0 | 2 | 0 | .21 | 35 | 76 | .22 | .0447 | 0 | 0 | .03 | .007 | .0011 | 0 | 0/0 | | |
| 17 | Anaheim | 17 | 11.7 | 1 | 0 | 1 | 0 | .18 | 11 | 34 | .21 | .0469 | 0 | 0 | .02* | .009* | .0018* | 0* | 0/0* | | |
| 17 | Los Alamitos | NM | NM | NM | NM | NM | NM | .17 | 7 | 29 | NM | NM | NM | NM | .03 | .009 | .0019 | 0 | 0/0 | | |
| 18 | Costa Mesa | 13 | 10.7 | 4 | 0 | 5 | 0 | .15 | 3 | 12 | .22 | .0272 | 0 | 0 | .02 | .008 | .0007 | 0 | 0/0 | | |
| 19 | El Toro | 9 | 5.6 | 0 | 0 | 0 | 0 | .19 | 11 | 32 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 22 | Norco | NM | NM | NM | NM | NM | NM | .17 | 13 | 41 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 23 | Rubidoux | 10 | 6.3 | 0 | 0 | 0 | 0 | .29 | 90 | 142 | .16 | .0336 | 0 | 0 | .03 | .005 | .0003 | 0 | 0/0 | | |
| 23 | Riverside | 15 | 7.3 | 0 | 0 | 0 | 0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | March Field | 200 |
| 24 | Perris | NM | NM | NM | NM | NM | NM | .19 | 62 | 116 | .11* | .0282* | 0* | 0* | NM | NM | NM | NM | NM | (Riverside) | |
| 25 | Lake Elsinore | NM | NM | NM | NM | NM | NM | .19 | 36 | 80 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 28 | Hemet | NM | NM | NM | NM | NM | NM | .22 | 20 | 60 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 29 | Banning | NM | NM | NM | NM | NM | NM | .22 | 43 | 75 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 30 | Palm Springs | 5 | 2.3 | 0 | 0 | 0 | 0 | .17 | 27 | 73 | .09 | .0206 | 0 | 0 | NM | NM | NM | NM | NM | | |
| 30 | Indio | NM | NM | NM | NM | NM | NM | .16 | 10 | 47 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |
| 32 | Upland | 9 | 6.6 | 0 | 0 | 0 | 0 | .29 | 64 | 113 | .19 | .0411 | 0 | 0 | .01* | .006* | .0012* | 0* | 0/0* | | |
| 33 | Ontario | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | Ontario | [illegible] |
| 34 | Fontana | 6 | 4.9 | 0 | 0 | 0 | 0 | .27 | 92 | 132 | .20 | .0393 | 0 | 0 | .01 | .003 | .0001 | 0 | 0/0 | Airport | |
| 34 | San Bernardino | 9 | 6.0 | 0 | 0 | 0 | 0 | .29 | 78 | 129 | .20 | .0343 | 0 | 0 | .01* | .001* | .0001* | 0* | 0/0* | Norton AFB | 200 |
| 35 | Redlands | NM | NM | NM | NM | NM | NM | .30 | 81 | 131 | NM | NM | NM | NM | NM | NM | NM | NM | NM | (San Bernardino) | |
| 37 | Crestline | NM | NM | NM | NM | NM | NM | .33 | 103 | 144 | NM | NM | NM | NM | NM | NM | NM | NM | NM | | |

* - Less than 12 full months of data. Monitoring discontinued.

PPM - Parts by volume per million parts of air.

AAM - Annual Arithmetic Mean.

NM - Pollutant not monitored.

a) - The federal standard is annual arithmetic mean $NO_2$ greater than 0.0534 PPM.

b) - The federal standard is annual arithmetic mean $SO_2$ greater than 80 $ug/m3$ (0.03 PPM). No location exceeded the standard in 1990.

c) - The other federal standards (3-hour average > 0.50 PPM; AAM > 0.03 PPM) were not exceeded.

d) - Twenty-four hour average $SO_2$ ≥ 0.05 PPM with 1-hour Ozone ≥ 0.10 PPM, or with 24-hour TSP ≥ 100 $ug/m^3$.

e) - Visibility data are comparable to previous state standard. Visibility standard is less than 10 miles for hours with relative humidity less than 70%. Monitoring using equipment required by current standard is expected to begin in 1991.

f) - Station relocated in February 1990.

SOUTH COAST
AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive
El Monte, CA 91731

# 1990 AIR QUALITY DATA
# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

| Source/ Receptor Area No. | Location of Air Monitoring Station | Suspended Particulates PM10 g) | | | | | | Particulates TSP h) | | | Lead h) | | | | Sulfate h) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. (%) Samples Exceeding Standard | | Annual Averages i) | | | | | | | Quarters/Months Exceeding Standard | | | No. (%) Samples Exceeding Standard |
| | | | | Federal | State | | | | | | | | Federal | State | | State |
| | | Number of Samples | Max. Conc. in ug/m$^3$ 24-hour | >150 ug/m$^3$ 24-Hour | >50 ug/m$^3$ 24-Hour | AAM Conc. ug/m$^3$ | AGM Conc. ug/m$^3$ | Number of Samples | Max. Conc. in ug/m$^3$ 24-Hr. | AGM Conc. ug/m$^3$ | Max. Mo. Conc. ug/m$^3$ | Max. Qtrly. Conc. ug/m$^3$ | >1.5 ug/m$^3$ Qrtly Avg. | ≥1.5 ug/m$^3$ Mo. Avg. | Max. Conc. in ug/m$^3$ 24-Hr. | ≥25 ug/m$^3$ 24-Hr. |
| 1 | Los Angeles | 60 | 152 | 1(1.7) | 31(51.7) | 53.2 | 48.3 | 60 | 211 | 98.7 | 0.09 | 0.09 | 0 | 0 | 25.3 | 1(1.7) |
| 2 | W. Los Angeles | NM | NM | NM | NM | NM | NM | 54 | 163 | 62.1 | NM | NM | NM | NM | 24.8 | 0 |
| 3 | Hawthorne | 60 | 127 | 0 | 17(28.3) | 41.2 | 37.6 | 61 | 186 | 73.8 | 0.08 | 0.06 | 0 | 0 | 24.8 | 0 |
| 4 | Long Beach | 58 | 119 | 0 | 14(24.1) | 44.3 | 40.6 | 61 | 188 | 81.9 | 0.09 | 0.07 | 0 | 0 | 22.6 | 0 |
| 5 | Whittier | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 6 | Reseda | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 7 | Burbank | 60 | 161 | 1(1.7) | 28(46.7) | 52.3 | 47.6 | 60 | 191 | 89.2 | 0.08 | 0.07 | 0 | 0 | 25.9 | 1(1.7) |
| 8 | Pasadena | NM | NM | NM | NM | NM | NM | 57 | 142 | 69.5 | NM | NM | NM | NM | 28.4 | 1(1.8) |
| 9 | Azusa | 60 | 127 | 0 | 30(50.0) | 54.9 | 47.9 | 61 | 228 | 104.4 | NM | NM | NM | NM | 16.0 | 0 |
| 9 | Glendora | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 10 | Pomona | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 11 | Pico Rivera | NM | NM | NM | NM | NM | NM | 60 | 195 | 92.9 | 0.13 | 0.11 | 0 | 0 | 21.1 | 0 |
| 12 | Lynwood | NM | NM | NM | NM | NM | NM | 59 | 233 | 102.2 | 0.14 | 0.11 | 0 | 0 | 28.1 | 1(1.7) |
| 13 | Santa Clarita | 57 | 93 | 0 | 15(26.3) | 43.3 | 38.6 | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 14 | Lancaster j) | 58 | 342 | 2(3.4) | 22(37.9) | 52.9 | 43.8 | 28* | 217* | 78.9* | NM | NM | NM | NM | 6.0* | 0* |
| 16 | La Habra | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 17 | Anaheim | 59 | 158 | 1(1.7) | 20(33.9) | 49.1 | 43.1 | 58 | 422 | 91.3 | 0.10 | 0.06 | 0 | 0 | 18.3 | 0 |
| 17 | Los Alamitos | NM | NM | NM | NM | NM | NM | 60 | 834 | 103.4 | NM | NM | NM | NM | 16.8 | 0 |
| 18 | Costa Mesa | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 19 | El Toro | 55 | 88 | 0 | 16(29.1) | 43.1 | 39.7 | 30* | 132* | 78.2* | NM | NM | NM | NM | 13.4* | 0* |
| 22 | Norco | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 23 | Rubidoux | 61 | 207 | 3(4.9) | 46(75.4) | 78.4 | 66.9 | 61 | 274 | 110.1 | 0.08 | 0.05 | 0 | 0 | 19.9 | 0 |
| 23 | Riverside | NM | NM | NM | NM | NM | NM | 59 | 223 | 96.0 | 0.08 | 0.05 | 0 | 0 | 19.3 | 0 |
| 24 | Perris | 61 | 250 | 3(4.9) | 32(52.5) | 58.9 | 49.6 | 30* | 232* | 71.6* | NM | NM | NM | NM | 12.9* | 0* |
| 25 | Lake Elsinore | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 28 | Hemet | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 29 | Banning | 54 | 89 | 0 | 11(20.4) | 35.4 | 29.4 | 30* | 167* | 60.4* | NM | NM | NM | NM | 8.6* | 0* |
| 30 | Palm Springs | 59 | 83 | 0 | 9(15.3) | 34.5 | 30.5 | 30 | 170* | 57.4* | NM | NM | NM | NM | 5.6* | 0* |
| 30 | Indio | 59 | 520 | 4(6.8) | 41(69.5) | 79.3 | 64.9 | 29* | 1485* | 130.5* | NM | NM | NM | NM | 7.0* | 0* |
| 32 | Upland | NM | NM | NM | NM | NM | NM | 60 | 289 | 93.0 | 0.07 | 0.05 | 0 | 0 | 18.7 | 0 |
| 33 | Ontario | 59 | 185 | 4(6.8) | 37(62.7) | 71.7 | 61.0 | 29* | 243* | 90.6* | NM | NM | NM | NM | 19.9* | 0* |
| 34 | Fontana | 59 | 475 | 3(5.1) | 43(72.9) | 77.6 | 62.7 | 59 | 1770 | 115.6 | NM | NM | NM | NM | 18.3 | 0 |
| 34 | San Bernardino | 60 | 235 | 2(3.3) | 35(58.3) | 65.0 | 54.8 | 60 | 289 | 100.9 | 0.07 | 0.05 | 0 | 0 | 17.3 | 0 |
| 35 | Redlands | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| 37 | Crestline | 59 | 88 | 0 | 11(18.6) | 36.6 | 31.1 | 30* | 124* | 46.7* | NM | NM | NM | NM | 6.6* | 0* |

* - Less than 12 full months of data. Monitoring discontinued.

ug/m$^3$ - Micrograms per cubic meter of air.

AGM - Annual Geometric Mean.

g) - PM10 suspended particulates samples were collected every 6 days using the size-selective inlet high volume sampler with quartz filter media (PM10 refers to fine particles with aerodynamic diameter of 10 micrometers or less).

h) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media. Federal TSP standard superseded by PM10 standard, July 1, 1987.

i) - Federal PM10 standard is AAM > 50 ug/m$^3$; state standard is AGM > 30 ug/m$^3$.

j) - Station relocated in February 1990.

## RESPONSE NO. 4

South Coast Air Quality Management District

4a. The regional setting is included on page 11 in the Eir.

4b. Section 4410 of the Downey Municipal Code addresses dust suppression during construction. SCAQMD Rule 403 will be adhered to, insuring the clean up of construction-related dirt on approach routes to the site. Adequate watering techniques will be employed to partially mitigate the impact of construction-generated dust particulates.

4c. The Air Quality Chapter, which will be adopted by the December, 1992 required deadline, will discuss Operation Related Air Quality Impacts and adopted mitigation measures. It is expected that the element will address transportation demand management techniques, trip reduction ordinances, mobile source control measures, etc. Trip reductions will arise out of implementation of SCAQMD Regulation XV which will affect tenants employing more than 100 persons.

4d. Air Quality Impacts resulting from Downey's location surrounded by four freeways will be addressed in the Air Quality Chapter. Policies locating commercial and industrial uses close to major and secondary arterials and freeways will reduce VMT's and thus air emissions. The City of Downey is a member of the Southeast Los Angeles Air Quality Consortium which is preparing a sub-regional air quality chapter. It is premature to comment on air quality impacts at this time.

4e. In these economic times, it is difficult for cities to establish new capital improvement programs. Downey relies heavily on sales tax revenues to fund city services. Sales tax revenues are down and it is difficult to predict when the economy will turn around.

4f. Given that only generic classes of uses and not specific projects are identified at this time, it may be premature at this time to go beyond a comparable general commitment to achieve VMT/trip reduction with the understanding that a more formalized program will be developed once it is appropriate to do so. Downey believes that it is premature to establish Air Quality objectives, goals and policies without backup data. That data is being prepared for the Air Quality Chapter. Inconsistencies will be corrected when the chapter is adopted.

4g. Mitigation measures and a monitoring program will be established in the Air Quality Chapter. Policies from the Conservation, Land Use, Circulation, Open Space Chapters are also mitigation measures for Air Quality. Relevant policies include:

Conservation Policies:

4.4.2 The City should develop a policy for the protection, replacement and preservation of public and private mature specimen trees.

4.5.1 Develop a policy for planting, removal, replacement and maintenance of trees in street parkways and on public property under City control.

Open Space

7.1.1 Adopt programs to preserve existing open space;

7.2.1 Develop new parks in the areas of greatest need;

7.2.2 Develop a connector bike trail;

7.2.6 Require large commercial, industrial and residential developments to establish usable open space in their projects.

Circulation

2.1.1 Comply with provisions of the Congestion Management Plan;

2.2.1 Promote traffic safety by maintaining and improving the level of service on major streets, where possible;

2.3.1 Consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped and the general public;

2.3.2 Coordinate with other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City;

2.5.1 Encourage the safe and efficient movement of truck traffic through the City;

2.5.2 Land uses promoting the use of heavy trucks should be discouraged within the City;

2.6.1 Encourage walking and bicycling as attractive alternatives to vehicular transportation;

Land Use

1.1.2 Regulate residential density;

1.1.3 Retain the pattern of large residential parcels where appropriate;

1.3.3 Create areas for mixed land uses;

1.4.2 Create neighborhood centers, or "nodes", at designated intersections;

1.6.1 Monitor, review and comment on regional plans, as they relate to the City's General Plan;

1.6.2 Monitor, review and comment on activities of neighboring cities, as they relate to the City's General Plan;

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**COMMENT NO. 5**

December 17, 1991

SCAG No. LA-55289-EDR

Ms. Mary Martineau, Senior Planner
City of Downey
11111 Brookshire Avenue
Downey, CA 90241

Subject: Comments on Downey Comprehensive General Plan Update and Draft EIR

Dear Ms. Martineau:

Thank you for the opportunity to review and comment on the Downey Comprehensive General Plan Update and Draft Environmental Impact Report. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies to review projects and plans for consistency with the Regional Housing Needs Assessment (RHNA), the Regional Mobility (RMP), Growth Management (GMP), and Air Quality Management (AQMP) Plans, all of which are included in the State Implementation Plan (SIP).

The attached comments are meant to provide guidance for addressing the proposed Comprehensive General Plan Update within the context of our regional goals and plans, which are based in part upon state and federal mandates. While the City is not required to undertake the specific actions recommended by SCAG or other agencies through the Inter-Governmental Review Process, there are requirements in state and federal laws for consistency with regional goals and plans.

If you have any questions about the attached comments, please contact Glenn Blossom, (213) 236-1876, or Jim Birckhead, (213) 236-1915.

Sincerely,

Anne Baker

ANNE BAKER
Director of Environmental Planning
AB:GB:GENDEVGP.DOW

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## SCAG Comments on the Downey Comprehensive General Plan Update and Draft EIR

DESCRIPTION

The City of Downey is located approximately 12 miles southeast of Los Angeles Civic Center, in Los Angeles County. It is 12.8 square miles of relatively flat terrain and is virtually a built out community. New development is comprised of infill construction. A major emphasis of the General Plan Update is to retain the single family character of the city while also facilitating continued development and new types of growth in the industrial and commercial sectors. The City anticipates that this will enable the Rockwell site and the historic downtown to be developed in an orderly and well-planned manner. In this way the City hopes to augment their tax base in order to generate adequate funds to finance necessary service increases.

The project involves the update of each chapter of the Downey General Plan. The following chapters are included in the Plan:

Land Use, Circulation, *Housing, *Conservation, *Safety,
*Noise, *Open Space, Design, Economic Development, and
*Hazardous Waste Management

Those chapters marked with an asterisk have been adopted; those not asterisked will be reviewed by the Planning Commission during the month of December, 1991. An Air Quality Chapter will be prepared in 1992, therefore Air Quality is not discussed in the Draft EIR.

There are no proposed changes in residential densities. Some multi-family designated areas have been designated for other development; however, all single family areas will remain. Floor-Area Ratios are proposed for commercial and industrial areas. There are minor redesignations in other land use areas

REGIONAL PLAN POLICIES

There are a number of policies expressed in the Growth Management Plan (GMP) which are particularly relevant to this project. Among them are policies which would:

o Promote future patterns of urban development and land use which reduce costs of infrastructure construction and make better use of existing facilities, and to achieve a good match between future growth and the phasing of new facilities or expansion of existing ones.

o Encourage growth to occur in and around:

  - activity centers
  - transportation node corridors
  - underutilized infrastructure systems
  - areas needing recycling and redevelopment

o Encourage mixed-use developments and other planning techniques to make employment centers easy to walk to or reach by transit.

o Achieve better job/housing balance at the subregional level through:

  - encouragement and provision of incentives to attract housing growth in job-rich subregions
  - encouragement and provision of incentives to attract job growth in housing-rich subregions

o To the degree possible, achieve a balance, by subregion of the type of jobs with the price of housing.

## GROWTH MANAGEMENT

### Analysis

In 1990 the City of Downey had a population of 91,444 and had 34,302 dwelling units. In the year 2010, the General Plan Update would accommodate a population of 100,538 and 3,766 dwelling units. this does not include the historic downtown and Rockwell sites, which are designated mixed use. The number of residential units for these sites will be determined when the specific plans are written. SCAG's unofficial policy-driven population and housing projections for the City of Downey for the year 2010 are 98,992 and 40,544, respectively.

According to SCAG's designation of subregions, Downey is located in the Long Beach/Downey Subregion which had a job/housing ratio of 1.21 in 1984. This ratio indicated that the subregion was slightly housing-rich in that base year. However, the trend projected in the GMP indicates that the subregion is becoming job-rich and that corrective measures are needed to bring it back toward equilibrium. As a result, the GMP established a job/housing balance performance goal ratio of 1.45 for the growth that will occur in the subregion from 1984 until 2010.

The Draft EIR provides no calculation for the amount of employment within the city that could be generated by the proposed commercial and industrial land uses depicted in the Land Use Chapter. This precludes the calculation of jobs/housing relationships which could be attributed to the General Plan Update. For the purpose of coordinating regional planning with local planning efforts, it is of vital importance to address job/housing relationships in the final EIR.

Because air quality issues are not being addressed at this time in the Downey General Plan Update, there is no analysis of the potentially adverse air quality impacts of reducing the number of multifamily units that can be constructed in the city.

Also, there is no mention made in the Draft EIR of any initiative by the City of Downey to enter into arrangements with other cities in the Long Beach/Downey Subregion to address growth management planning. This is one of the key programs of the GMP and should be considered as a possible mitigation measure for the traffic and circulation impacts of the General Plan Update.

### Recommendations

The Final EIR should address the consistency of the General Plan Update with the AQMP/SIP and the GMP. This should be done now, even though the Air Quality Chapter is not being considered as a part of the General Plan Update at this time. Subjects which require discussion or amplification include:

(1) An estimate of the number of workers that would be generated by buildout of the commercial and industrial land uses proposed by the plan.

(2) A target or goal for the number of housing units that should be developed within the mixed-use area proposed for the historic downtown and Rockwell sites.

(3) Where the future work force would live.

(4) The affordability of housing for workers in the city, particularly in relation to the proposal to greatly restrict the development of multifamily housing within the city.

(5) Subregional job/housing relationships - existing and future - and possible VMT reduction alternatives.

(6) The feasibility of a plan alternative that places greater emphasis on mixed-use development and TDM measures as a means to minimize trips and VMT consistent with GMP and AQMP/SIP.

(7) A program involving the initiation of growth management planning at the subregional level.

## TRANSPORTATION DEMAND MANAGEMENT

### Analysis

The General Plan Update contains several policies and programs related to Transportation Demand Management (TDM) including compliance with the AQMP, Congestion Management Plans, encouraging telecommuting, parking management, non-motorized transportation, adoption of a TDM ordinance, and concentration of land uses near transportation corridors and public transit facilities.

However, to be adequate for the purposes intended by the SIP, the TDM program should include the following elements:

(1) An adequately detailed description of TDM measures incorporated into the plan as mitigation measures or features of the plan.

(2) Expected effect and VMT/VT reduction targets for each component of the TDM program.

(3) Funding sources for each program component.

(4) Identification of the agencies or persons responsible for monitoring and administering the TDM program.

(5) An implementation schedule for each TDM program component.

Recommendations

the TDM policies and programs of the General Plan should be designed to include commitments to specific TDM programs with clear delineation of responsibilities, trip reduction targets, financial arrangements and specific schedules for action on each specific measure.

SIP CONFORMITY

A project is found to be in conformance with the State Implementation Plan (SIP) when it has satisfied the following three criteria:

(1) It improves the subregion's job/housing balance performance ratio or is contributing to attainment of the appropriate subregional VMT target.

(2) It reduces vehicle trips and vehicle miles traveled to the maximum extent feasible by implementing transportation demand management strategies.

(3) Its environmental document includes an air quality analysis which demonstrates that

the project will not have a significant negative impact on air quality in the long term.

Findings

As described in the Draft EIR, the Downey General Plan Update does not conform to the SIP at this time. Its impact on job/housing balance performance ratios has not been assessed. The TDM programs of the plan are imprecise and do not demonstrate a rigorous effort to reduce trips and VMT to the maximum extent feasible. No air quality analysis has been done on the plan.

Recommendations

Prior to considering the approval of the General Plan Update, the following problems should be addressed by the City of Downey:

(1) Possible inconsistency with the Regional Growth Management Plan.

(2) Imbalance between the cost of housing and the types of jobs being created.

(3) Unresolved circulation, traffic, and transportation issues. The transportation demand management component of the plan is not yet adequate to alleviate the burden that the added growth which is provided by the plan will impose on the circulation and transportation systems within the community.

## RESPONSE NO. 5

Southern California Association of Governments

Growth Management Plan

1. There are very few actual changes from the existing land uses to the proposed land use diagram. Manufacturing and Office uses show a significant drop, however; this is due to the designation change for the historic downtown and the Rockwell site. The historic downtown has many offices that would remain under the new mixed use designation and the Rockwell site is changing from manufacturing to mixed use with residential, open space and commercial/manufacturing. The Market study commissioned by the City shows that "private sector businesses located in the City employ an estimated 36,314 persons. Government sector jobs account for roughly an additional 10 percent increment to the job base."[1] The City projects 38,599 dwelling units at full build-out in 2010.

Further, SCAG has not taken into account the fact that Downey has about 1,000 persons in group living such as Rancho Los Amigos Hospital, convalescent homes and Los Padrinos. Downey should be given credit for those units.

Finally, proposed 1991 amendments to the Growth Management Control Measure of the AQMP de-emphasizes jobs/housing balance targets in favor of direct vehicle miles traveled (VMT) reduction goals. The mitigation measures in the Circulation Chapter are designed to reduce VMT.

2. Target number of housing units for the mixed areas are
800 units for the historic downtown area
700 units for the Rockwell/L. A. County site

3. Ideally, the future work force in the mixed use areas will live and work in Downey.

4. Page 20 of the Land Use Chapter of the General Plan discusses the cost of housing in Southern California. In Downey, house prices range from $100,000 in south Downey to $1,000,000 in northeast Downey. This range reflects the variety of jobs available in Downey, from manufacturing to high-tech aerospace.

There is a 14% drop in multi-family residential housing units from the existing land use inventory to the proposed 2010 plan. Many of the units that will be phased out are located on busy intersections or along roadways that, because of noise and traffic, are better suited for commercial development.

---

[1] "Final Report" Tier 2 (Downtown) Study Area, Prepared for Downey Community Commission, Prepared by Market Profiles and The Synthesis Group, October, 1991.

5. Downey is a balanced community. It has a good balance of single-family and multi-family residential units as well as commercial and industrial development. Downey is also close to major employment centers. Large aerospace firms, both in Downey and Pico Rivera, employ many of Downey's residents. The cities of Santa Fe Springs and Commerce, which are 90 percent industrial, attract many of Downey's workers.

The Circulation Chapter of the General Plan has policies and programs adopting VMT reduction measures.

6. Vision 2010, the proposed General Plan, shows 356 acres of mixed-use development. Policies of the Circulation Chapter of the Plan state that Downey will comply with the Congestion Management Plan to reduce VMT's.

7. The City Council will consider SCAG's recommendation to work with other jurisdictions in the Long Beach/Downey Subregion regarding growth management.

## Transportation Demand Management

1. Vision 2010, the Downey Comprehensive General Plan Update, is a general document designed to serve as a policy statement for the next 20 years. By its very nature, it is general and not project specific. Detailed programs will be developed as the need arises.

2. When the TDM measures are defined, their expected effect and reduction targets will be known.

3. Funding sources have not been identified.

4. The City's Traffic Engineer will monitor and administer the TDM program.

5. An implementation schedule will follow development of the TDM.

## SIP Conformity (State Implementation Plan)

SCAG states that the proposed General Plan Update does not conform to the SIP at this time. It also states that there is a possible inconsistency with the Regional Growth Management Plan, imbalance between the cost of housing and the types of jobs being created, and there are unresolved circulation, traffic, and transportation issues. The General Plan is a policy document designed to serve the city for the next 20 years, and is not project specific. The city also points out that much of the projected population growth for Downey is the result of larger family size, which the city does not regulate or control.

1. In the mixed-use areas, the historic downtown and the Rockwell site, the City is planning 1200 new housing units. The mixed use areas, combining residential and commercial uses, will reduce VMT's. Policies in the Circulation Chapter are intended to reduce VMT's.

2. The Downey General Plan Update contains many transportation demand strategies. The mixed use areas, 356 acres, of residential, commercial and commercial/manufacturing , will reduce VMT's. The bike paths and new sidewalks throughout the City encourage non-vehicular travel. Downey has been working with LACTC in bringing the Metro Green Line and the park & ride facility, to the City.

The Countywide Congestion Management Plan (CMP) authorized by Proposition 111 in 1990, is expected to be adopted in late 1992. Until the opening of the I-105 freeway in 1993, Firestone Boulevard will be part of the CMP roadway network. New developments will be required to mitigate significant impacts to intersections along this network, as well as to nearby freeway segments. The CMP will require Downey to adopt a Trip Reduction Ordinance to reduce the number of single-passenger vehicle trips within Downey. Because the CMP applies to all new projects approved after July 1989, all developments in the City will be subject to the provisions of this ordinance when it is adopted.

3. This EIR, and responses to comments, include an air quality discussion. As stated in the document, a detailed discussion of air quality will be contained in the sub-regional Air Quality Chapter which will be presented to Council by December, 1992. It will contain tables quantifying project-related emissions. It is premature to comment until that data is available.

Implementation of the General Plan, with commercial and industrial projects in close proximity to major circulation facilities, employment and housing, will serve to reduce vehicular trips, thus achieving the goals and objectives of the AQMP. Trip reduction through the measures identified in the Draft EIR will result in further offsetting the incremental increase in air emission in the air basin. Achievement of vehicular trip reductions and the resulting decrease in air emissions will adequately mitigate impacts created by the project.

LAW OFFICES OF
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**COMMENT NO. 6**

**December 19, 1991**

**HAND DELIVERED**

Planning Commission
City of Downey
City Hall
11111 Brookshire Avenue
Downey, California 90241

**Re: Second Opposition to General Plan Amendment -- Forced Eminent Domain and Permit Control Provisions.**

Dear Members of the Planning Commission:

This letter is sent to set forth in writing the further objections of Downey CAREs to the General Plan amendment entitled "Economic Development Chapter" and also its objections to certifying the Environmental Impact Report for the overall General Plan process.

**OBJECTIONS TO THE E.I.R. --- VIOLATIONS OF C.E.Q.A. AND STATE REGULATIONS.**

The Environmental Impact Report ("EIR") for the General Plan amendment process if a "program EIR" for a twenty year duration. The current draft EIR fails to identify all the potential impacts of the program proposed in the various General Plan amendments. This violates **§ 15166(a)(1)** and **Article 9 (§§ 15120-15132)** of the **California Environmental Quality Act ("CEQA")** Regulations.

Last night at the Planning Commission meeting, the oral comments of the Deputy City Attorney, Mr. McOsker, in effect admitted the failure of the EIR to identify all known impacts. His comments merely stated that the EIR had analyzed all impacts which it identified. He pointedly failed to state the City Attorney had reviewed the EIR for completeness as to all identified impacts. His oral opinion did not respond my comments made regarding impacts. By failing to address them, he admitted that the EIR lacked the crucial aspect of identifying all major impacts to be caused by the 20 year program of implementing these General Plan amendments.

By failing to identify all impacts the EIR fails to contain any analysis of those missing impacts. The EIR fails to suggest any mitigation measures for these missing impacts. The missing impacts are: it fails to contained a worse case scenario regarding the 20 years impacts of eminent domain usage, and it fails to identify the 20 year impacts on ambient air quality.

## E.I.R. FAILS TO IDENTIFY AIR QUALITY IMPACTS.

The City's EIR staff person admitted that no 20 year air quality impacts had been identified in the EIR. She stated that this would be done "at the end of 1992" is a "regional document" prepared by another agency for an unspecified different project. This is an admitted violation of State **CEQA Regulation § 15126(a)**, which requires that all impacts be identified and then analyzed and mitigated. The post hoc attachment of mitigation measures (from other projects) does nothing to change the admitted violation of **§ 15126(a)**.

## E.I.R. FAILS TO CONTAIN WORSE CASE SCENARIO FOR EMINENT DOMAIN OF BUSINESSES AND RESIDENTS.

State **CEQA Regulation § 15126(a)** also requires a worse case analysis over the 20 year implementation of these General Plan amendments. The "Economic Development Chapter" requires all current redevelopment plans to be amended to included additional areas and that all portions (existing and new) must include (1) eminent domain, (2) tax increment financing, (3) control over otherwise valid building permits. See, **Health & Safety Code § 33331 and Government Code § 65359.**

The severe adverse human health impacts of eminent domain and forced dislocation on residents and small business persons have been well documented in the scientific community. People have a strong emotional attachment to their businesses and homes. This is broken by force in the eminent domain process. Increases in morbidity (disease) and mortality (death) of the victims of eminent domain have been repeatedly documented in the studies of Professor Thayer Scudder (California Institute of Technology), Professor Gary Richwald (UCLA Medical School), and Professor Alan Bokenshaw (UC Santa Barbara). The stress of the eminent domain and dislocation process reduces the functioning of the immunological system. The stress also causes sudden mood changes and depression. None of the these health impacts are economically compensated in the eminent domain process.

## E.I.R. FAILS TO DESCRIBE OR ANALYZE HEALTH IMPACTS OF A "NO EMINENT DOMAIN" ALTERNATIVE PLAN.

The elimination of any possible expansion of eminent domain would greatly mitigate the human health impacts causeD by the use of eminent domain over a 20 year period. The EIR fails to address such an alterative. This is a violation of **CEQA Regulation § 15126(d)**.

## STATE PLANNING LAW RENDERS THE AMENDMENT MANDATORY -- REDEVELOPMENT PLANS MUST BE AMENDED TO CONFORM.

In my comments last night I read Government Code § 65359 in its entirety into the record. It is the companion section to Health & Safety Code § 33331 in requiring mandatory consistency between the General Plan and other plans. For your ease of reference § 65359 reads as follows:

**Any specific plan or other plan of the city or county that is applicable to the same areas or matters affected by a general plan amendment shall be reviewed and amended as necessary to make the specific or other plan consistent with the general plan.**

This applies to redevelopment plans. The proposed General Plan amendments would require all of Downey's redevelopment plans to be amended to be consistent with the requirement of eminent domain. The General Plan "Economic Development Chapter" is thus a self-executing and automatic mandate to add eminent domain, and to add territories not already included in the many redevelopment project areas. The failure to identify and analyze the eminent domain impacts is a serious omission which renders the EIR deficient as a matter of law.

## THE RESIDENT VS. BUSINESS EMINENT DOMAIN LIMITATION IS DISCRIMINATORY AND AN UNENFORCEABLE ILLUSION --- ALL RESIDENCES WILL BE SUBJECT TO EMINENT DOMAIN.

The power of eminent domain, once granted to an entity, is seen as "an inherent power of sovereignty" or as "an exercise of the police power." See, **People v. Chevalier (1959) 52 Cal.2d 299.** Public entities may not waive or contract away such powers. Thus, the claimed "limitation" purporting to exclude residences would be void on its face. It is a false limitation. Any time the City wished to condemn a homeowner it would assert the doctrine of "The police power is never waived." Bye-bye homeowners and tenants!

Furthermore, it is irrational and discriminatory to subject small businesses to eminent domain but not residences. Both are within the redevelopment project areas. Both have been declared to be "blighted" as part of the redevelopment process. Eminent domain's only public purpose in redevelopment is to correct such "blight," but the limit would be contrary to the stated goal. The City would be unable to corrected "blighted" residences. Such business vs. residence limitations on eminent domain in redevelopment are specifically voidable. See, **Emmington v. Solano County Redevelopment Agency (1987) 195 Cal.App.3d 491, 501.**

By utilizing the General Plan process to force eminent domain on certain areas, rather than the more lengthy and careful redevelopment plan amendment process, the City is also denying due process of law to those who will be condemned and lose their homes and businesses. Use of a less protective adoption process in redevelopment violates due process of law. See, **Card v. Community Redevelopment Agency (1976) 61 Cal.App.3d 570**. There, the redevelopment plan struck down because due process was violated when the amendment process did not match the first adoption process.

Likewise, failure to notify the potential condemnation victims of the EIR preparation process also undermines the General Plan amendment. As a legislative act mandating eminent domain inclusion for certain properties the proposed "Economic Development Chapter" is part of the eminent domain process. Those to have their property rights adversely impacted are entitled to notice and an opportunity to be heard of this continuing hearing. The same requirement will apply for the City Council hearing scheduled in January. Each property owner must be notified of the hearing. See, **Conejo Recreation & Park District v. Armstrong (1981) 114 Cal. App. 3d 1016** Right to due process of law must be respected in an eminent domain proceeding. Also see, **Connecticut v. Doehr (1991) ___ U.S. ___ [115 L.Ed.2d 1, 111 S.Ct. 2105, 59 U.S.L.W. 4587]** and **Burbank-Glendale-Pasadena Airport Authority v. Hensler (1991) 233 Cal. App. 3d 577.**

This "Economic Development Chapter" forces on Downey property owners and residents unfair redevelopment, abusive eminent domain, and so-called "specific plans" which would deny them necessary building permits even if in compliance with current zoning requirements.

## CITY STAFF SEEKS TO PROCURE PLANNING COMMISSION APPROVAL BASED ON FRAUDULENT REPRESENTATIONS.

**The following false statements or implications have apparently been suggested to the Planning Commission by the City staff regarding these proposed General Plan amendments. They are all lies.**

**1.** They say: the General Plan is only a long range plan and does not have any required impacts in redevelopment plans.

The is false because of Government Code § 65359 and Health & Safety Code § 33331 require the redevelopment plans to be amended to be made consistent with the General Plan amendments. See, **deBottari v. Norco City Council (1985) 171 Cal.App.3d 1204.**

**2.** They say: eminent domain is economically fair to the property owners, tenants and residents who are displaced.

This is found in pages IX-1 through IX-7 of the document used by the City staff to justify inclusion of the "Economic Development Chapter" entitled: "Tier One - Lakewood/Firestone Boulevard Study Area" prepared by Market Profiles and The Synthesis Group, dated May 1991.

Downey CAREs and the PAC have requested this document for the last 6 months, going back to May 1991. It was only obtained publicly this week. It has never been given to the Planning Commissioners or to the City Council members. It overtly false statements have never been subject to professional review or public debate. The document has been falsely labeled as "Draft" to avoid required disclosure under the Public Records Act (Government Code § 6250 et seq.).

The above assertion is false because eminent domain law denies the property owner, tenant, or resident their attorney fees, their expert fees, their down time and disruption of their lives. No compensation is paid for stress or stress-related injuries or illness. Eminent domain law denies "full replacement value" for the lost property, but merely pays "fair market value" according to a limited formula in the statute.

**3.** They say: nothing in the history of Downey suggests people would object to eminent domain being mandated by the General Plan amendment.

This is a falsity by omission in the Land Use Chapter, pages 28, 29, and 30. It omits the 1983 and 1987 referendums. It omits the four lawsuits filed by Downey CAREs and the PAC. It omits the published Court of Appeal opinion, **Downey Cares v. Downey Community Development Commission (1987) 196 Cal.App.3d 983**. It omits the 1987 and 1991 contracts with Downey CAREs, with the Woodruff-Everest-Benedict Business Association, and with the Murata Family Trust. It omits the cut-off of petition and voting rights.

These omissions cover up the reason for the General Plan amendment: Avoid the voters on eminent domain and seek to invalidate the contracts. Restated: To double-cross the people of Downey.

## THE ONEROUS BURDEN OF BUILDING PERMIT CONTROLS ON PROPERTY IN COMPLIANCE WITH ZONING.

In most circumstances when a property owner proposes maintenance or alteration of the property a building permit must be obtained. If the proposal is in compliance with the zoning and local laws, the permit issues as "a matter of right." You simply pay the processing fee and the building permit is issued. Many aspects of the proposed General Plan amendment change all that.

The proposed chapters related to Land Use, Economic Development, and Design would make all building permits subject to lengthy and discretionary review. No rational standards are set forth. No time lines are established. These building permit controls give staff members virtual veto power over all private land use decisions.

They also put a cloud over the several subject areas to be burdened by these unrestricted building permit controls. There is no certainty for an owner's dollar investment in plans and engineering. This will scare away lenders and buyers. It will cause a loss of jobs and sales tax income to the City. Even if ultimately granted a discretionary approval, the process of applying and waiting often destroys the ability to meet a deadline to procure a tenant, a buyer, or a lender.

There seems to be a notion behind these building permit controls that City staff members know all, see all, and have unlimited wisdom. This is a notion that governmental review is always beneficial. There is no analysis of the costs to businesses and owners to comply with these new building permit controls. The EIR fails to identify or analyze the environmental impact of vacancies and lower economic activity scared off from Downey as a result of these controls.

State Law does not require such building permit controls to be in the General Plan. There is no time pressure for them. Omit them, or at least delay their consideration until each aspect of them, and the costs to businesses and jobs can be fully analyzed in the EIR.

## DOWNEY CARES OPPOSES THE 1991 "ECONOMIC DEVELOPMENT CHAPTER."

As currently written, this "Economic Development Chapter" will force the City to adopt and re-adopt redevelopment projects including the opposed aspects of: **(1) eminent domain, (2) tax increment financing, and (3) control over building permits** that are otherwise in compliance with zoning.

For the reasons set forth in the letter delivered yesterday and those set forth above, Downey CAREs opposes this "Economic Development Chapter" as it is now written. Downey CARE's would support a revised Economic Development Chapter.

### DOWNEY CARES WILL CHALLENGE THE EIR AND GENERAL PLAN AMENDMENTS BY REFERENDUM PETITIONS AND LITIGATION.

This proposed EIR and the "Economic Development Chapter" are in violation of the 1987 agreements and state law. They violate the exclusive amendment procedures of the two redevelopment plans and in state law. They steal from property owners and residents their property rights, due process rights, and the right to petition and the right to vote. They deny property owners a legally adequate EIR which analyzes the impacts of eminent domain on human health.

Unless changed to omit the improper redevelopment portions, Downey CARES will challenge this "Economic Development Chapter" by referendum petitions and appropriate litigation.

### CONCLUSION:

### POSTPONE CONSIDERING THE "ECONOMIC DEVELOPMENT CHAPTER" OR AT LEAST ELIMINATE ALL REFERENCES TO REDEVELOPMENT, EMINENT DOMAIN, TAX INCREMENT FINANCING AND BUILDING PERMIT CONTROLS ON COMPLYING PROPERTY.

Downey CAREs requests that the Planning delay all consideration of the "Economic Development Chapter", or at least delete from it all references to redevelopment, to eminent domain, tax increment financing and building permit controls for proposals on property in compliance with applicable zoning.

**Sincerely,**

**CHRISTOPHER SUTTON**
**Attorney for Downey CAREs**

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ORIGINAL

**January 22, 1992**

Planning Commission
City of Downey
City Hall
11111 Brookshire Avenue
Downey, California 90241

**HAND DELIVERED**

**Re: Third Opposition to General Plan Amendment -- Forced Eminent Domain and Permit Control Provisions; Denial of Project Area Committee Review; Failure to Evaluate Human Health Impacts of Threatened and Future Use of Eminent Domain.**

Dear Members of the Planning Commission:

This letter is sent to follow-up on my letters of December 16, 1991, and December 19, 1991, on behalf of Downey Cares. We still oppose the General Plan Amendment as now proposed.

**WRONGFUL DENIAL OF PROJECT AREA COMMITTEE REVIEW; RIGGED AND UN-REPRESENTATIVE "GENERAL PLAN STEERING COMMITTEE."**

On August 30, 1985, Judge Norman Dowds in the case of Downey Cares vs. City of Downey invalidated Amendment No. Three to the Firestone Corridor Redevelopment Plan. This was based on two reasons. The later 1987 Court of Appeal opinion recited only one reason for the Plan's invalidity; conflicts of interest. However, the other reason cited by Judge Dowds in 1985 is still binding on the City of Downey today under the legal doctrines of **res judicata** and **collateral estoppel**. That is, the City is obligated as a matter of law to conform its actions to the 1985 ruling of Judge Dowds.

The other reason for the 1985 ruling was the failure to have an **elected and representative Project Area Committee** in existence prior to the Council's action imposing redevelopment and eminent domain throughout the Firestone Corridor.

This proposed general Plan Amendment today violates Judge Dowds 1985 order in the Downey Cares lawsuit. In that case, the advisory committee was appointed, not elected, and each Council member merely appointed two members each to the 1983-84 committee. The committee was a rigged committee. It was not representative as required by law of those who would be victimized in the future by the redevelopment and eminent domain. It was a political patronage committee, not a bona fide Project Area Committee. Has history repeated itself?

In the case of this now proposed amendment to the General Plan, **the very same improper appointment procedure was followed.** Each Council member appointed two committee members as a political patronage appointment. There was no election to the General Plan Steering Committee amongst those most threatened by the use of redevelopment and eminent domain which it envisioned and would require. The Steering Committee is not representative of those who will be victimized. It was and is a rigged committee.

This General Plan Amendment would mandate eminent domain and redevelopment. All future decisions would be ministerial; i.e. merely routine approvals mandated by the General Plan. In order to comply with Redevelopment Law and the principles of due process and equal protection set forth in the California and United States Constitutions, you need to have a **newly elected Project Area Committee** before this proposed General Plan Amendment may be considered. It must be elected by those threatened to become the future victims of redevelopment and eminent domain.

To fail to have such an elected PAC would violate Judge Dowds' 1985 orders and the holding in **Card v. Community Redevelopment Agency (1976) 61 Cal.App.3d 570 [131 Cal. Rptr. 153]**. In that case a South Pasadena Redevelopment Plan was struck down because of the City's failure to follow the same procedures required for plan adoption when attempting to accomplish the same result. Don't repeat that mistake.

## VIOLATIONS OF CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") FOR FAILURE TO HAVE AN E.I.R. TO ANALYZE THE TRAGIC HUMAN HEALTH CONSEQUENCES OF THREATENED EMINENT DOMAIN.

The initial study checklist used to evaluate the environmental impacts of this proposed General Plan Amendment is fraudulent. It found no significant possibility of such impacts. It is a wholesale lie to suggest that this Amendment will have no measurable effects on the environment or on human health. A full E.I.R. is required to analyze such impacts.

Today, Downey cares has submitted into the record over 2,000 page of scientific studies and treatises which document the severe adverse human health impacts of dislocation trauma syndrome. People die when threatened with forced removal from their homes and their businesses. Their immunological responses break down. Their self-esteem and psychological health break down. There is depression, head aches, ulcers, and suicides. The will to live is smothered.

Eminent domain and redevelopment are brutal tools of forced evacuation. American citizens of Japanese decent know this kind of forced government program. Unlike 1942, today such proposed government programs require a full analysis in an complete and fair environmental impact report. No such report has been prepared. This proposed general Plan Amendment may not go forward at this time without a full and fair E.I.R..

**Sincerely,**

Christopher Sutton

**CHRISTOPHER SUTTON**
**Attorney for Downey CAREs**

cs:Downey CARES:gen_plan4.ltr

## RESPONSE NO. 6

Letters from Christopher Sutton

December 19, 1991

1. Mr. Sutton states that the General Plan EIR fails to identify air quality impacts.

Response: Response #4 adequately discusses air impacts and the plan's mitigation measures. Based on that information, air impacts generated by the Downey General Plan Update are considered not to be significant. Additionally, more detailed information will be forthcoming in the Air Quality Chapter of the General Plan which will be adopted in December, 1992.

2. On page 4 of the 12/19/91 letter, Mr. Sutton contends that "The EIR fails to identify or analyze the environmental impact of vacancies and lower economic activity scared off from Downey are a result of these [building permit] controls." He also states that the EIR does not analyze the costs to businesses and owners to comply with new building permit controls.

Response: Under CEQA regulation 15126(a) an EIR is to identify and focus on the significant environmental effects of the proposed project. The City considers that the possibility of any such effect is too speculative for evaluation and, therefore, insignificant.

3. Mr. Sutton contends that the EIR violates CEQA Regulation 15126(d) because it fails to address the effect of elimination of any possible expansion of eminent domain on the impact of human health.

Response: The city analysed this potential effect by discussing existing land use buildout in accord with the existing General Plan and buildout in accord with the proposed General Plan. The EIR states that the effect on human health was found not to be significant under the proposed General Plan.

Letter of January 22, 1992

1. On page 2, Mr. Sutton contends that the EIR found no significant effects to human health created by the Downey Comprehensive General Plan Update and that a full EIR is required to analyze the effects of the Plan on human health. In support of that statement, Downey CAREs submitted into the record over 2,000 pages of scientific studies and treatises that they say document the "severe adverse human health impact of dislocation trauma syndrome."

Response: Staff has reviewed all documents submitted. Most of the documents discuss the effects of forced residential relocation on the elderly. The General Plan does not propose to relocate any persons from their residences. One study submitted, written in the late 1950's, does discuss the effects of Urban Renewal relocation on small businesses and concludes that the effects were minimal. Many of the studies submitted discussed the ill effects of residential relocation resulting from the Urban Renewal projects of the 1950's and 60's. Those studies were instrumental in bringing about the reforms required in redevelopment projects today. The documents submitted, therefore, do not consider the current statutory requirements on the City regarding relocation. The EIR considered the effect of the General Plan on human health and determined the possibility of such effects not to be significant.

## REPONSE NO. 7

Dr. Sullivan

"Downey CAREs is opposed to the EIR as written. The EIR does not address forced relocation of businesses and homes. The EIR is deficient since it fails to consider the effects of relocation on the health and mortality of residents and businesses." He then submitted documents regarding health problems associated with relocation.

Response: As stated in response #6, Staff reviewed all documents. The majority of articles discussed health problems resulting from residential relocations, especially among the elderly and infirm. Downey's Economic Development Chapter does not propose redevelopment on any residential properties. The only article discussing business relocation concluded that adverse effects were minimal. The EIR considered the effect of the General Plan on human health and determined the possibility of such effects not to be significant.

Mr. Sutton

Mr. Sutton verbally presented the issues in his 1/22/92 letter (see Response #6).

## RESPONSE NO. 8

At the February 12, 1992 public hearing, the Planning Commission changed eight policies in the proposed General Plan. Since the policies are mitigation measures of the Environmental Impact Report, their environmental impact on the plan must be considered. Following are the changed policies and their impacts:

~~1.1.3 The City shall retain the pattern of large residential parcels where appropriate.~~

Land Use-The Commission deleted the proposed policy from the General Plan. Deletion of the policy will permit land divisions in neighborhoods with large lots even though zoning permits smaller lots, for example, a 10,000 square foot lot in an R1-5000 zone could be divided into two lots, if all requirements are met. Over time, more lots will be created and more units built, resulting in more people living in Downey. The exact number of units that will be created cannot be predicted at this time, nor can the increase in population.

2.4.1 The City shall consider the expansion of its existing intracommunity transit service to better accommodate seniors, the handicapped, school children and the general public.

Circulation-the Commission added "school children" to those that could be transported by the City's intracommunity transit. This could benefit local traffic conditions since it would lessen congestion at schools. It would also reduce traffic on local streets before and after school.

~~3.6.3 Encourage the Little Lake, Montebello and Whittier Unified School Districts to lower their school development fees.~~

Housing-This policy was deleted. In these economic times, it is unrealistic to ask other school districts to lower their development fees. The impact on Housing will be minimal.

4.1.1. The City will continue to encourage the conservation of water through the water bill process;~~study restructuring of water bills to encourage the conservation of water~~;

Conservation-The policy was reworded since the City has restructed water bills to encourage conservation. The restructuring is a beneficial effect.

5.2.1 The City shall ~~join~~ participate in the FEMA program.

5.2.2 The City shall support the Army Corps of Engineers' projects ~~raising of bridges and levees for river beds;~~

Safety-These policies were reworded to reflect the fact that the City has joined the FEMA program. This is a benefit to the community since flood hazards will be mitigated by the Army Corps of Engineers' projects.

6.1.3 The City's noise standards shall be 45 dB CNEL interior and 60 dB CNEL exterior.

Noise-The City's noise standards were included as policy of the General Plan. The standards will have a beneficial effect on residents since new projects and major remodels will be mitigated to meet the standards.

6.2.3 The City shall work with the Southern Pacific Railroad line and developers to help integrate the railroad with its surroundings.

Noise-This policy, and its accompanying program, requires mitigations from developers adjoining railroad rights of way to pay for improved signals, rubberized railroad crossings and related crossing improvements. This will move traffic through the city more smoothly and will reduce noise at the crossing. The policy will have a beneficial effect on circulation and noise in Downey.

8.1.3 Encourage & develop programs to preserve the integrity of neighborhoods by evaluating the proportional relationship between structures.

Design-The Commission included this policy in the Design Chapter. It promotes design standards for second stories of single family residences. This will have a beneficial effect on the environment since the impression of higher density will be reduced by adjusting side yard setbacks, reducing bulk and mass in previously single story neighborhoods.

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c:response.1

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